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MONTHLY PROGRESS REPORT ★ SECTION

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24 APR 1946 *E. Haden Shepard*

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HEALTH

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HEALTH

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DISEASE AND INJURY

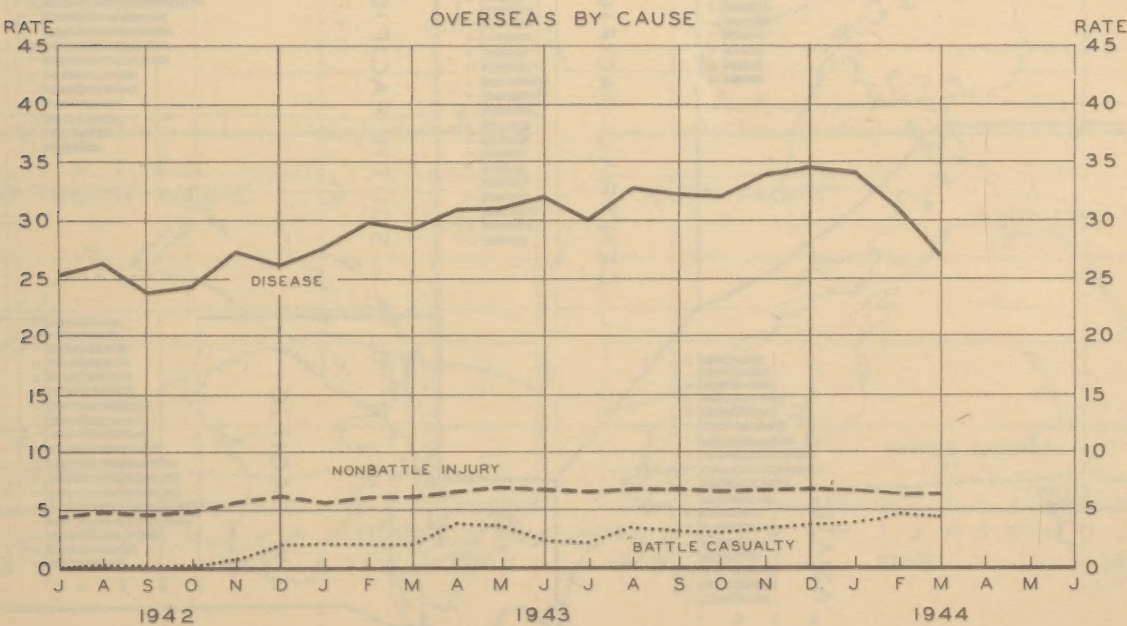
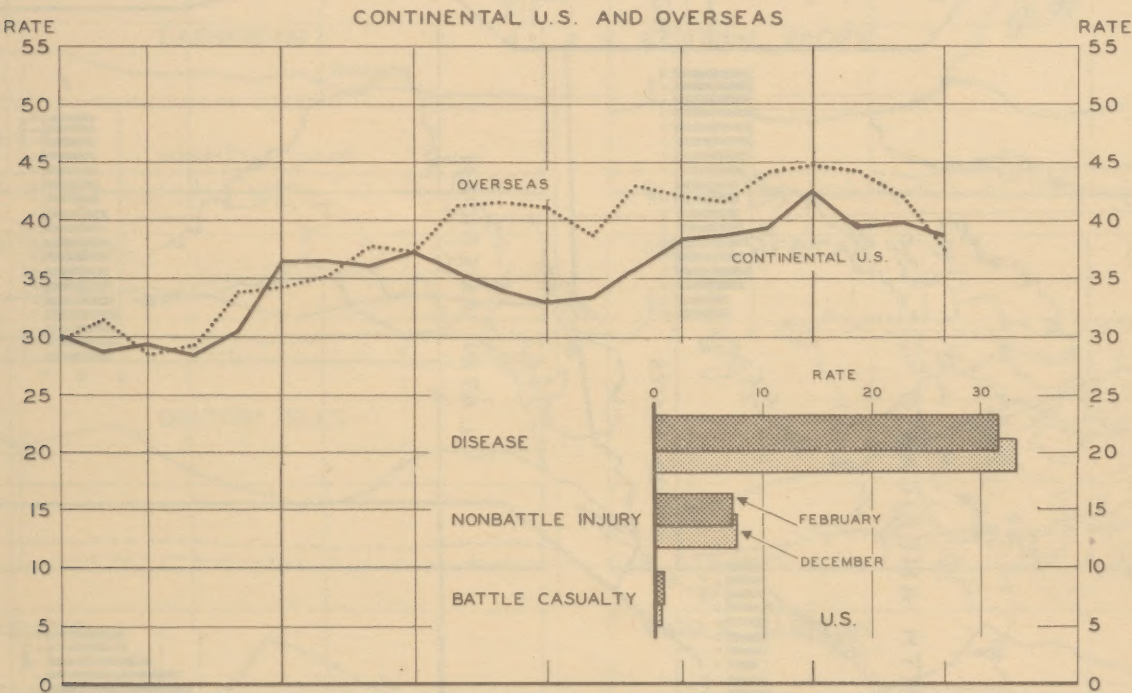
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NONEFFECTIVE RATES, U.S. AND OVERSEAS

The average daily noneffective rate for troops in the Continental U. S. declined slightly from the February level of 40 to 39 noneffectives per thousand men per day during March. Provisional estimates for all troops overseas indicate that the average noneffective rate decreased to 37 for March, the lowest value in the past 12 months. The insert in the first panel below gives preliminary estimates of the disease, nonbattle injury, and battle injury components of the U. S. noneffective rate for February in comparison with December. The slight decline in the total rate since December evidently reflects the change in the noneffective rate for disease. The longer period of treatment for nonbattle injury is suggested by the fact that during February injuries accounted for only 9 percent of all admissions but 19 percent of all the days lost. The increasing importance of evacuees from overseas in elevating the noneffective rate is seen in the fact that malaria caused as much as 0.5 noneffectives per 1,000 strength per day during February, and all types of evacuees increased the rate perhaps 4 or 5 points. Neuropsychiatric patients contributed 3.5 points, and tuberculosis patients .2 point to the total rate for February.

NONEFFECTIVES PER THOUSAND MEN PER DAY

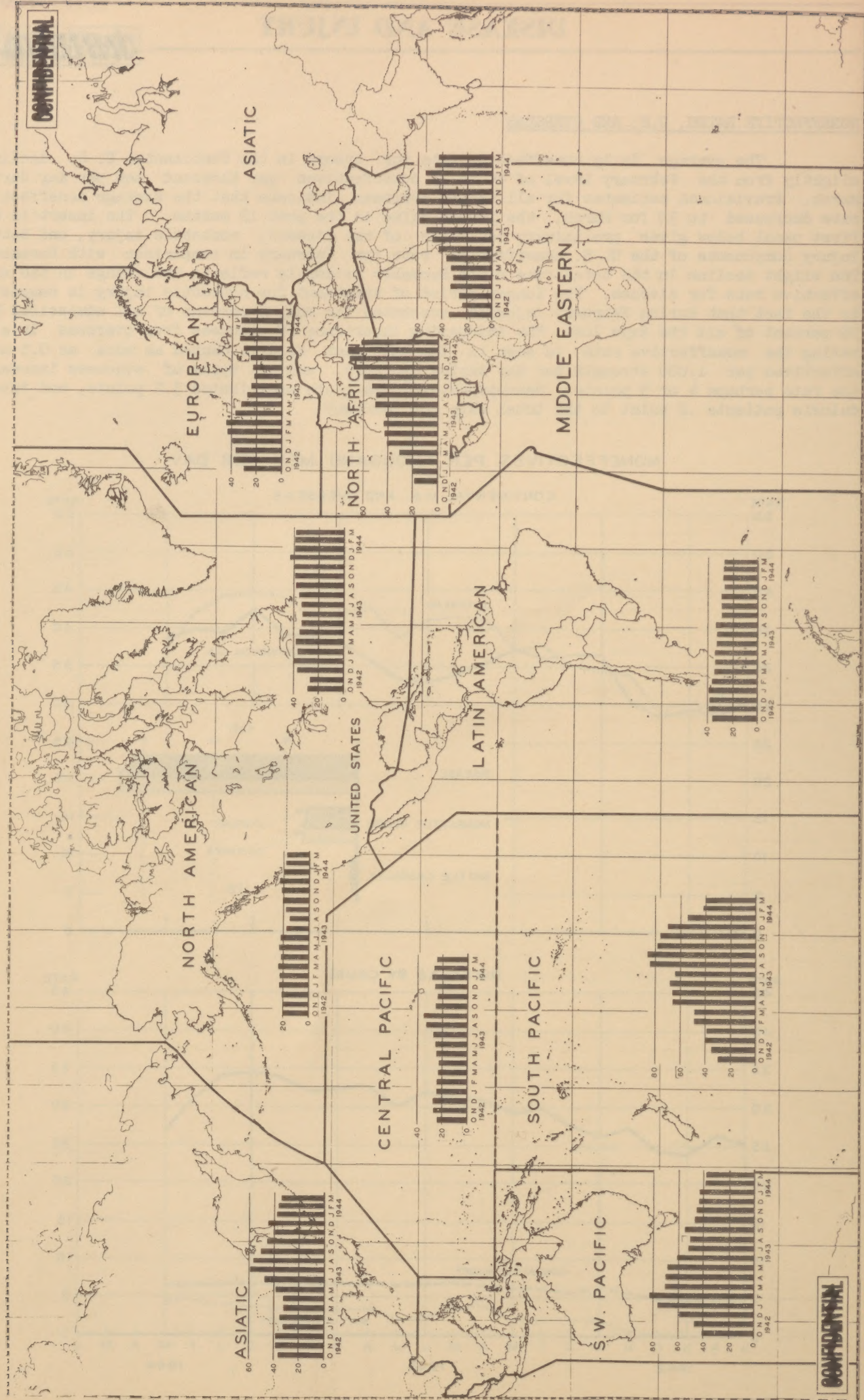


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NONEFFECTIVES PER THOUSAND MEN PER DAY

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DISEASE AND INJURY

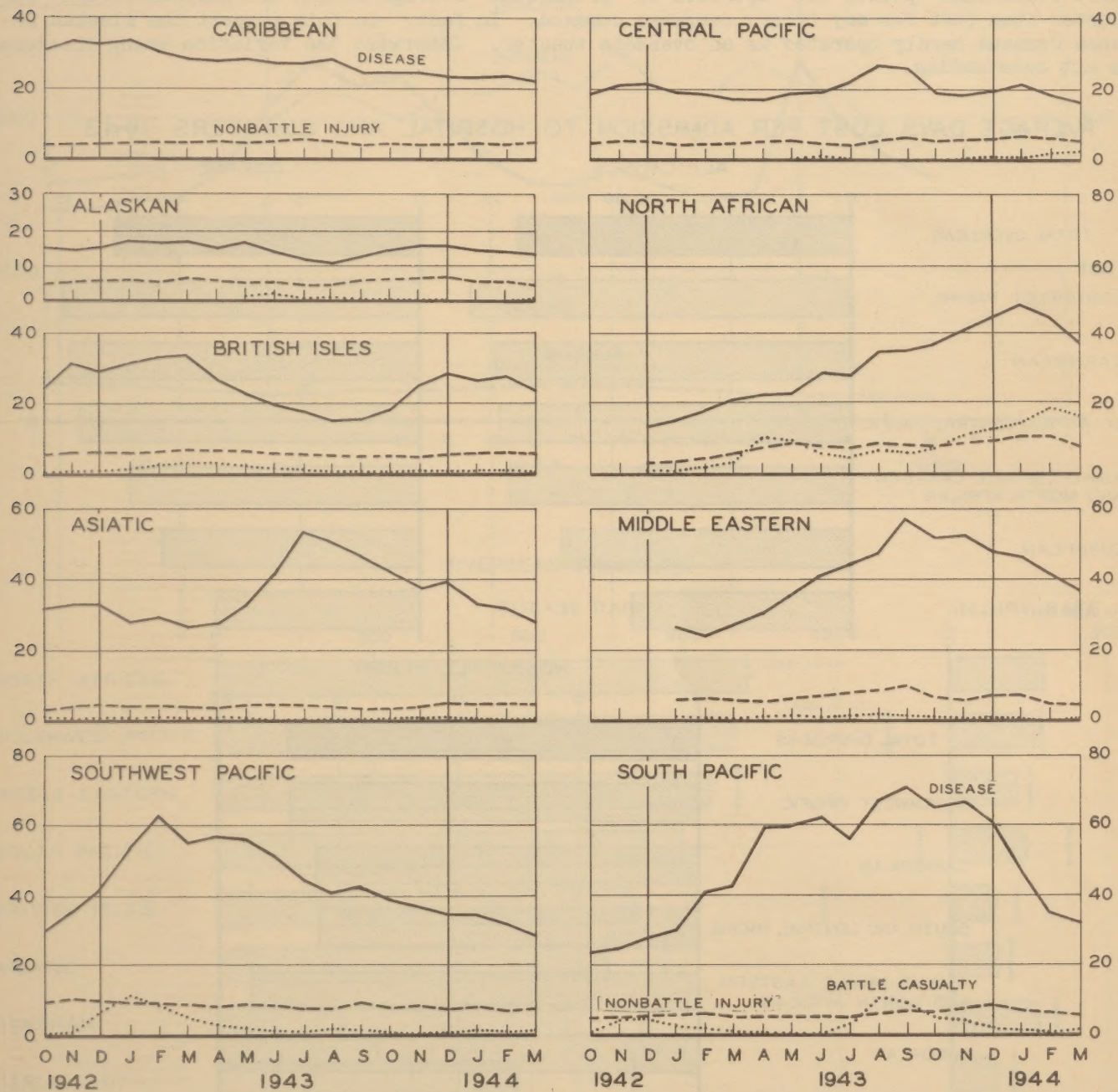
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NONEFFECTIVE RATES OVERSEAS

The decline in the total overseas noneffective rate, shown in the top panel on the first page, reflects a general decrease in noneffectiveness in all overseas theaters. In most commands the change continued a trend begun several months before. In North Africa, however, the decline was the first since July 1943. In the charts below, the total rates shown on the map across the page are separated into the components attributable to disease, nonbattle injury, and battle casualty. Points for the most recent months are based upon provisional radio reports.

Noneffectiveness because of disease declined in all theaters during March. The continued decline in the South Pacific has resulted in a March rate approximately one-half that which was reported in December. In North Africa noneffectiveness from battle casualty declined during March for the first time since September 1943.

NONEFFECTIVES PER THOUSAND MEN PER DAY
OVERSEAS COMMANDS



DISEASE AND INJURY

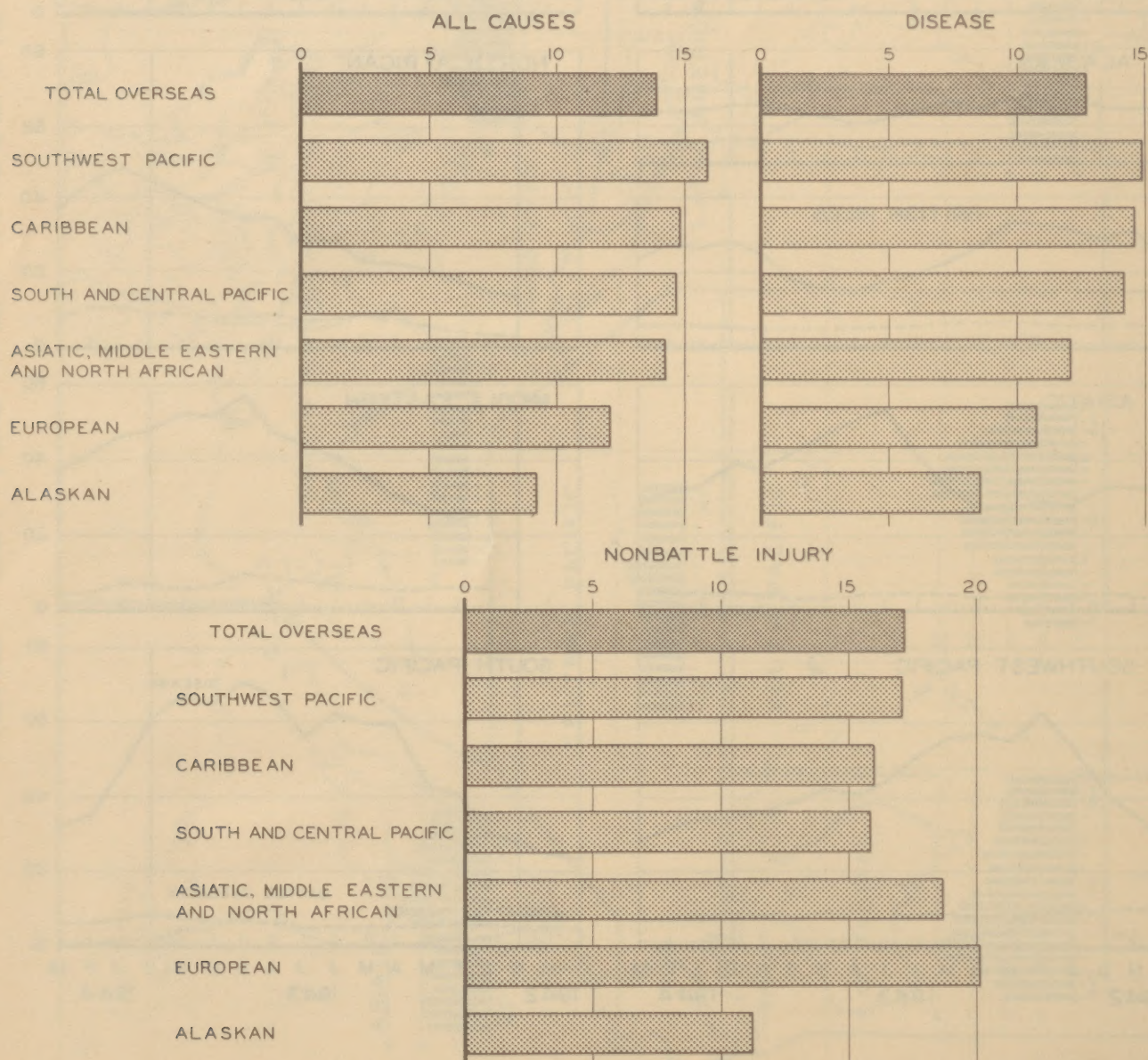
LENGTH OF TREATMENT IN HOSPITAL AND QUARTERS, OVERSEAS THEATERS, 1943

The relation between the average daily noneffective rate and the admission rate to hospital and quarters makes it possible to prepare preliminary estimates of the time lost by the average admission to hospital and quarters. Such estimates have been prepared for patients admitted for disease, for nonbattle injury, and for all causes in overseas theaters during 1943.

The treatment of patients in a theater or other command after their transfer from the theater of original admission makes it necessary to combine certain large commands, if estimates are to be made from current statistical reports. This is particularly true of patients admitted in the South Pacific and later transferred to the Central Pacific section of the Pacific Theater. For this reason the estimates shown here do not distinguish between the sections of the Pacific Theater.

The average length of time patients are treated in a theater depends upon several factors, in addition to diagnosis. These include the evacuation policy, whether or not transfers from other theaters are given hospitalization, and the administrative factors governing length of stay in hospital or quarters. In the Alaskan Defense Command the extremely short evacuation policy has operated to produce an average length of hospitalization far shorter than that for any other overseas command. In fact, in this respect the Alaskan Defense Command hardly operates as an overseas theater. Otherwise the variation among theaters is not outstanding.

AVERAGE DAYS LOST PER ADMISSION TO HOSPITAL AND QUARTERS, 1943



DISEASE AND INJURY

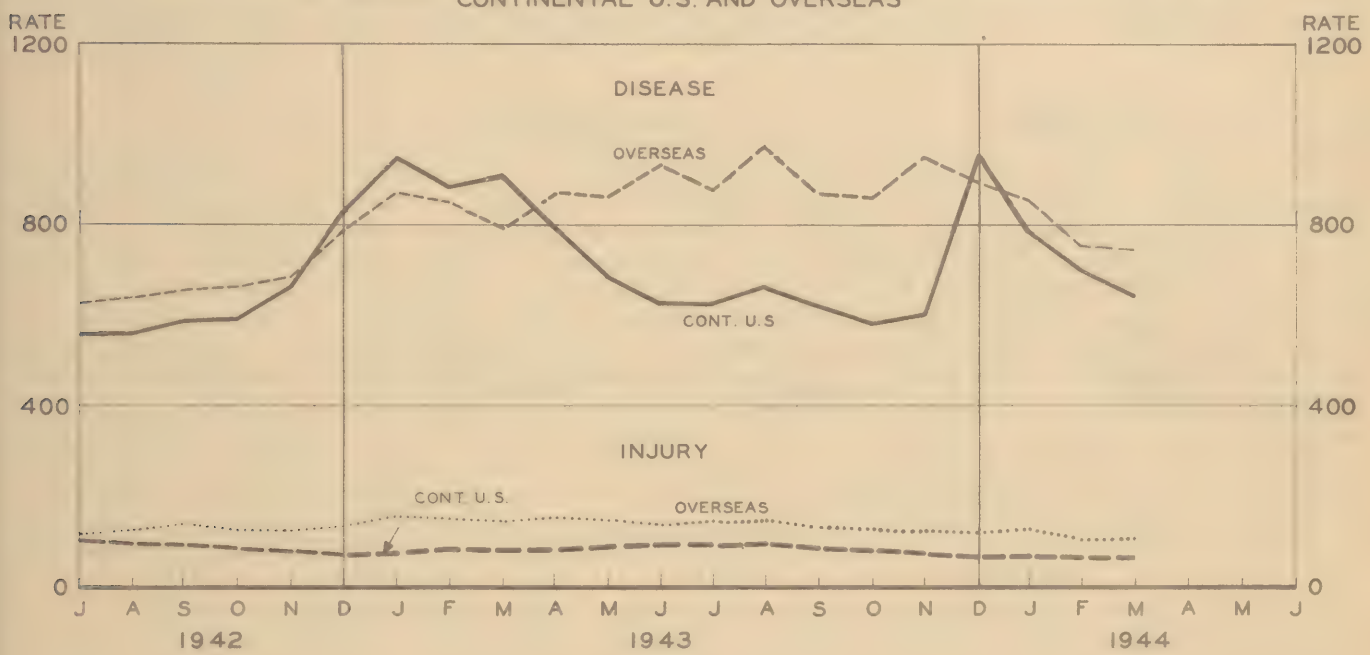
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DISEASE AND NONBATTLE INJURY

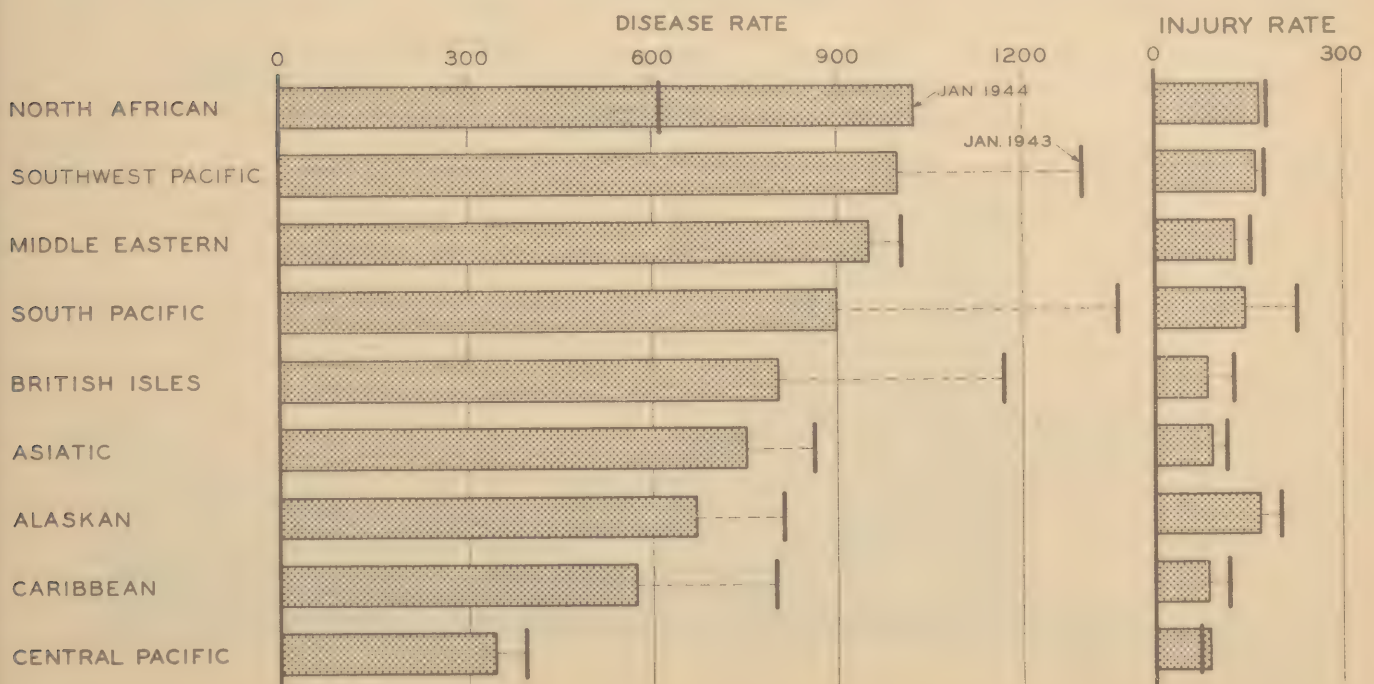
During March a further decline in admission rates for all disease was recorded both in the U. S. and overseas. The provisional rates are 638 and 744 admissions per thousand men per year. Moreover, according to preliminary telegraphic reports the admission rate for disease declined in all overseas commands except Alaska and the South Pacific where very slight increases were recorded. The admission rates for nonbattle injury remained virtually unchanged for both the U. S. and overseas during March.

The panel at the bottom of the page compares the overseas theaters with respect to admission rates for disease and nonbattle injury for January 1944 and January 1943. In every theater except North Africa, where the 1943 January rate was doubtless abnormally low, the 1944 rate was more favorable.

DISEASE AND INJURY, ADMISSIONS PER THOUSAND MEN PER YEAR
CONTINENTAL U.S. AND OVERSEAS



OVERSEAS THEATERS



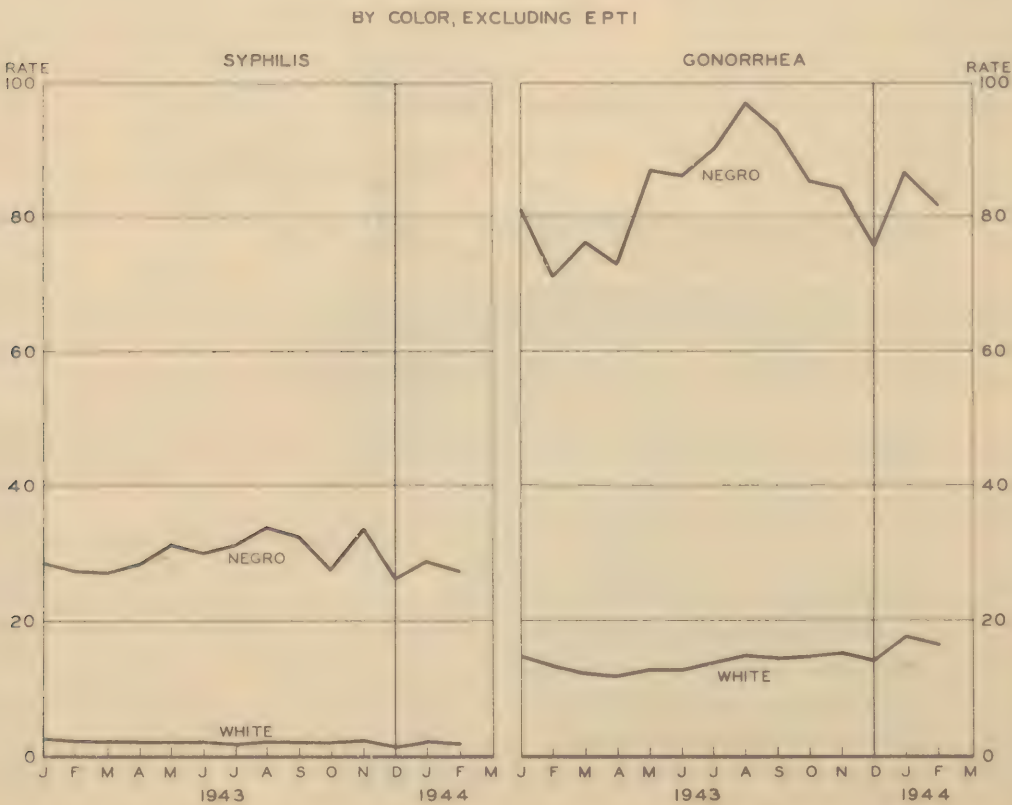
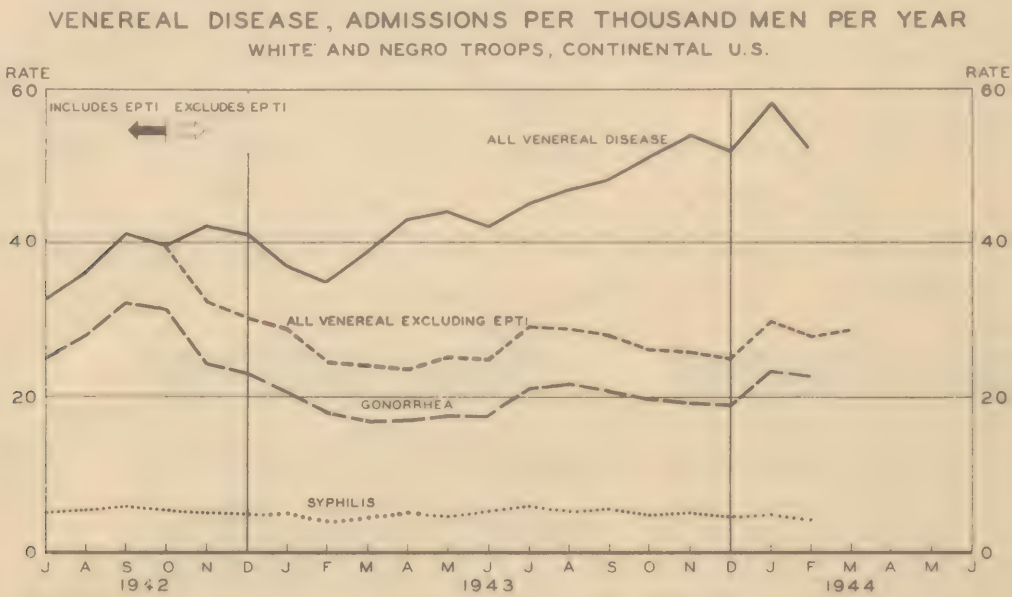
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DISEASE AND INJURY

VENEREAL DISEASE, CONTINENTAL U. S.

With the continued induction of venereally infected men, the uncorrected admission rate for venereal disease remains above 50 per 1,000 men per year, as may be seen from the top line of the chart below. During February infections were somewhat less numerous among both inductees and men already serving in the Army. The changes in induction procedure which were first felt in February may be partly responsible for the smaller number of infected inductees. After its decline in February the corrected rate, which excludes infections acquired prior to entrance upon active duty, did not change materially during March. It continues to represent about 50 percent of the total uncorrected rate.

The charts at the bottom of the page, which give the rates for gonorrhea and for syphilis separately by color, show that the February decline was shared by both white and Negro troops. However, the gonorrhea rate for whites continued to be well above the rate for any month in 1943.



DISEASE AND INJURY

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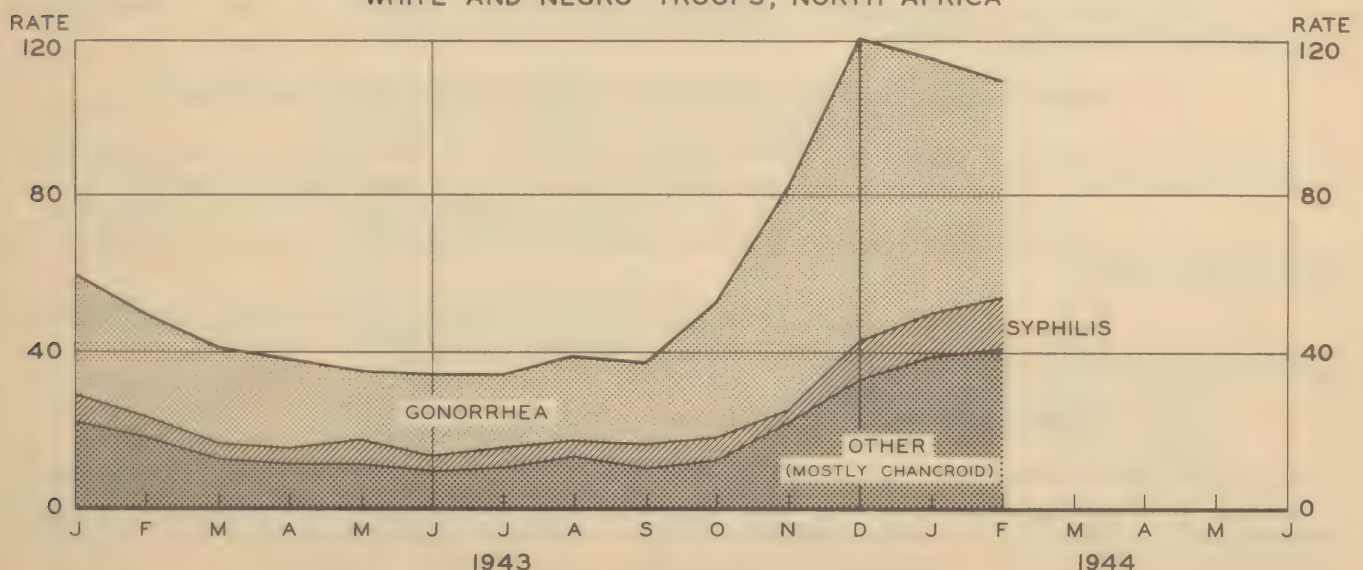
VENEREAL DISEASE IN NORTH AFRICA

In North Africa a large body of U. S. Army troops has been exposed to a highly infected civilian population among which prostitution is both widespread and accepted as an institution. It has been necessary to relearn the lesson that periodic medical examinations of legalized prostitutes offer no real protection against infection, and that the accessibility of prostitutes tends to increase the frequency of sexual contact and thus to foster the spread of venereal disease. Moreover, with the invasion of Sicily and the Italian mainland there was superimposed upon an already unfavorable epidemiological situation a degree of economic and political chaos among the civilian population which fostered clandestine prostitution to a degree which virtually defied immediate control. The process is illustrated by the chart below which traces the admission rates in the theater since January 1943. For three months the rate of infection climbed steadily to reach a peak in December of about 120 admissions per 1,000 men per year or 1 percent of the strength. This rate is more than four times the rate established by the theater surgeon as an objective, itself slightly higher than the current U. S. rates. The problem is important not only for its military significance within the theater, but also because it portends similar difficulties elsewhere in Europe as the invasion progresses, and provides an opportunity for the development of a program of maximum effectiveness.

Venereal disease must be fought at different levels, and with many weapons. The Army customarily has little or no direct control over the reservoir of infection, the female civilian population, but under invasion conditions the necessity of control, and its possibility as well, are manifest. With no variation in the incidence of disease among contacts, the rate of infection varies directly with the rate of exposure, itself highly variable. The first line of defense must comprise those measures which will minimize sexual contact. These are of three kinds, educational methods which strengthen the self-discipline of the individual soldier, recreation which provides wholesome substitutive activities, and direct methods which place real barriers between soldiers and potentially infected female civilians, especially prostitutes. The effectiveness of these measures varies with individuals and circumstances. Acceptance of the idea that frequency of sexual contact is an immutable characteristic of "human nature", and that the only measures of control are prophylaxis and medical inspection of contacts, will threaten the success of any venereal disease control program. Official War Department policy does not favor punitive measures meted out to men who acquire infection. Exposure which cannot be prevented must be accompanied by various prophylactic measures necessarily voluntary in nature at the present time.

There is ample evidence that the accessibility of prostitutes, as in French North Africa, encourages sexual contacts which would not occur otherwise. Earlier reports from the theater clearly show that the rate of exposure fell drastically when houses of prostitution were placed "off limits" for certain units, while remaining high for other units. Recognition of the problem, perhaps coupled with some lessening of contacts because of training activities, appears to have reduced the rather high rates reported at the beginning of 1943 to a point where, prior to the invasion of Sicily, the theater rate was only about 35 admissions

VENEREAL DISEASE, ADMISSIONS PER THOUSAND MEN PER YEAR
WHITE AND NEGRO TROOPS, NORTH AFRICA



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DISEASE AND INJURY

VENEREAL DISEASE IN NORTH AFRICA (Continued)

per 1,000 men per year, or roughly 3 per 1,000 per month. All the problems faced in North Africa were intensified in Sicily, and the admission rate rose to a somewhat higher level immediately. A medical report from Sicily prior to Salerno made the following significant comment: "Both clandestine and commercial prostitution are practically unlimited on the island. It seems highly probable that similar conditions will be encountered in Italy." With the capture of Naples, however, the situation became critical and the average rate of infection in the theater increased each month until January, when a slight decline was registered, followed by another in February. Telegraphic reports suggest that the March rate will approximate that for February. As the accompanying chart reveals, most of the rise may be attributed to gonorrhea infections. Chancroid is also quite prevalent, its incidence being higher than that of syphilis.

No definitive interpretation may be made at this early date, but it does seem clear that several circumstances have operated to increase the rate of sexual contact, that there is a high incidence of infection among the women available to Army personnel, and that prophylaxis has been inadequate to compensate for the increased exposure. Until recently prophylactic facilities have not been too satisfactory. Initially the responsibility for establishing prophylactic stations appears not to have been clearly defined, and there were reports of inadequate washing facilities and of complaints of discomfort from the silver protein solution employed. As the rate of infection increased it became plain that the personnel available for the important and technical work of prophylaxis was not of sufficiently high quality to permit full realization of the value of chemical prophylaxis following exposure, and it became necessary to set up a special T/O to provide permanent skilled personnel for this activity. It is essential that prophylaxis not be discredited by improper administration. Surveys of infected men show that 30 to 40 percent commonly admit having taken no prophylactic measures, including those self-administered. One survey of 3,300 cases admitted in December and January showed that 40 percent did nothing, 32 percent claimed to have used the chemical kit, 24 percent declared they had received a G.I. prophylactic, and 3 percent stated that they had used condoms. Unfortunately even such subjective observations are restricted to infected men, so that they provide very little evidence as to the effectiveness of prophylactic measures. Possibly the new chemical kit, with a single tube in place of the usual two, will be more acceptable, but there is ample suggestion that at least a few men may invite infection in order to avoid combat duty, as has been illustrated in the case of malaria and self-inflicted wounds. Many others have fallen into a fatalistic attitude toward infection. It has been suggested that the men and the officers responsible for promoting their discipline have been unduly impressed by extravagant public statements as to ease of cure with modern drugs. It is essential that the hazard of infection not be so devalued as to diminish the desire for protection.

As the venereal disease problem has increased in the North African Theater there has been a greater willingness to place brothels and soliciting areas "off limits" to troops of various commands. In Italy a recent report details the following corrective measures, in addition to those general procedures discussed above:

- "(1) Brothels have been placed off limits to troops.
- (2) One section of Naples where clandestine prostitution is particularly prevalent has been placed off limits.
- (3) Recreational passes to Naples have been greatly restricted by units.
- (4) A greatly expanded system of prophylaxis stations is being established. A total of twenty-two widely distributed stations will soon be in operation in Naples.
- (5) Civil law enforcement agencies have been stimulated to enforce existing laws against soliciting.
- (6) Procedures have been instituted through which clandestine prostitutes will be apprehended, examined, and placed under treatment if found infected.
- (7) Recreational facilities are being increased."

An additional observation of importance is that penicillin is now available in such quantities, and is so simply administered, that its rapid (24 hour) therapeutic effect can now be realized in forward areas to reduce materially the noneffectiveness from gonorrhea. The same report quoted above also includes the following sobering comment, however:

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DISEASE AND INJURY

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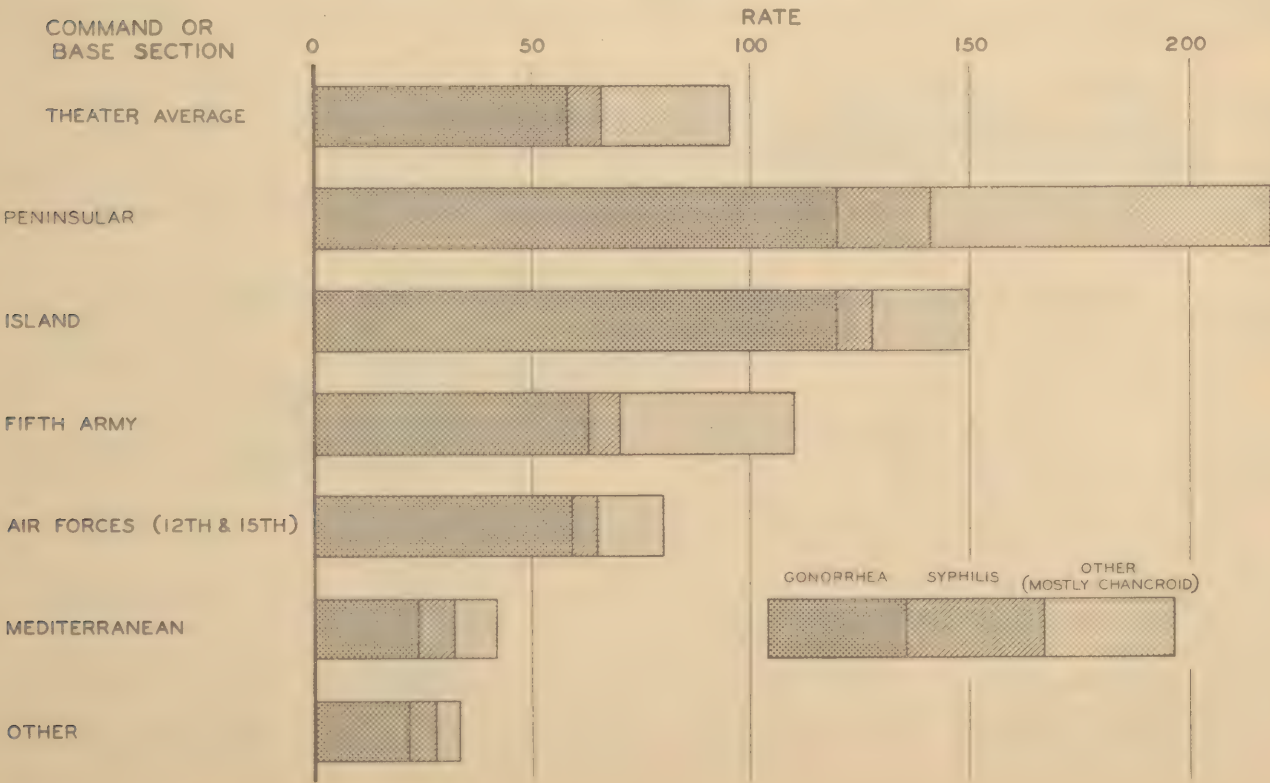
VENEREAL DISEASE IN NORTH AFRICA (Continued)

"Measures enumerated will reduce venereal disease incidence among troops in the area, but it is not expected that these measures alone will produce rates that can be considered entirely satisfactory. The clandestine prostitution problem will be beyond the powers of any conceivable police and epidemiological program as long as present economic conditions exist. Inflation has made practically all normal earnings insufficient for supplying the necessities of life and, apparently, large numbers of women are adopting prostitution. Until this condition is corrected control procedures will be only partially effective."

The economic problem is considered crucial in the widespread development of prostitution, not simply because of inflation but also because the invasion has destroyed many usual sources of income. This is especially important for the families of Italian soldiers held as prisoners in either Allied or German camps. Their homes bombed, governments overturned and payments stopped, relief agencies disorganized, industry at a standstill, and prices greatly inflated, many women with dependent children have found clandestine prostitution the only occupation open to them. The presence of adolescent girls in such homes has contributed to a general adolescent unrest which constitutes an important aspect of the situation. The economic problem is further complicated by the fact that American troops are well paid and unable to find normal social companionship.

The tremendous significance of effective public health measures among the civilian population is well illustrated by the Italian experiences with venereal disease. The inspection methods accompanying legalized prostitution offer no protection. In fact they promote a false sense of security among the uninitiated. In Oran one round-up of clandestine prostitutes prior to the Italian invasion showed that 75 percent were infected, and in Italy the effort is being made to teach every soldier that any accessible woman must be assumed to be infected. The Italian population is said to have been extremely short of therapeutic drugs for nearly two years, and unquestionably the prevalence of infection has been greatly increased by the war. A comprehensive control program among the civilian population is essential to the occupying Army. Not only must houses of prostitution and soliciting areas be placed "off limits", but all contacts must be traced in order to effect cures and to reduce the frequency of sexual contacts. If as many as 80 percent of the Fifth Army infections originated in Naples, as has been estimated, the chief focus of infection is well identified, but the Army must rely upon its Civil Public Health Program to furnish the leadership and the program for dealing with the civilian population.

VENEREAL DISEASE. ADMISSIONS PER THOUSAND MEN PER YEAR, WHITE TROOPS, DEC 1943 - FEB 1944



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DISEASE AND INJURY

SCRUB TYPHUS

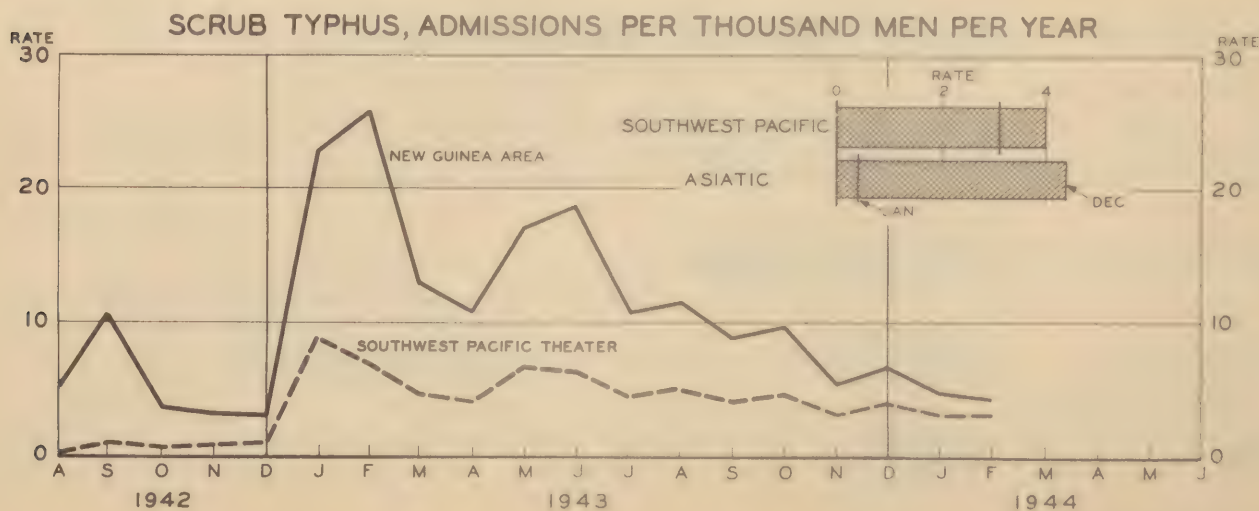
From July 1942, when the first case of scrub typhus was diagnosed in northern Queensland, through February 1944, more than 1000 cases have been reported from the Southwest Pacific Theater. Although many other diseases have caused more admissions among U. S. Army troops in this theater, scrub typhus is notable for the long hospitalization required and for its contribution to the death rate from disease in this theater. In November and December there was also an outbreak of scrub typhus among Chinese and American troops in the region of Assam in the Asiatic Theater.

There has been comparatively little change in the incidence of the disease in the Southwest Pacific Theater since this was discussed in HEALTH for October, despite the increasing concentration of troops in New Guinea where almost all the cases have originated. The high telegraphic rates for September and October which were then published in HEALTH later proved to be misleading. The accompanying chart gives the experience of the theater and of the New Guinea area since August 1942. The New Guinea rate has declined steadily in response to the institution of effective control measures. New foci of the disease have been found in New Britain with the extension of operations into this region. The chart also includes a comparison of the rates for the Southwest Pacific and Asiatic theaters during December and January. The outbreak which developed so rapidly in Assam during December quickly receded in January.

The incidence of the disease has been sharply focal in character, and outbreaks have usually appeared in units during the first month following movement into new areas, with subsequent work in kunai grass and adjacent wooded areas. After thorough preparation of camp sites the incidence of scrub typhus has decreased. Individual control measures have also proved effective for personnel in forward combat areas. Although the disease has occurred at all seasons of the year there is some evidence of variation in incidence associated with varying amounts of rainfall in certain areas. The epidemiology and control of scrub typhus were discussed in HEALTH for December.

Although the disease was originally thought to be confined to Japan, scrub typhus has been found in the Nansei Islands, Formosa, the Pescadores, Korea, Malaya, Ceylon, Maldive Islands, Sumatra, Java, Borneo, Australia (North Queensland), New Guinea, islands in the Solomons group, and areas of French Indo-China, China, India and Burma. It probably will also be found in many areas of China, Burma, the East Indies, and islands of the Bismark Archipelago where the disease has not been found previously. Because of the increasing military importance of the relatively unfamiliar disease, The Surgeon General has fostered epidemiological and clinical studies of scrub typhus with a view to developing the knowledge needed for its control. These studies have now progressed to a point where it has been possible to prepare a War Department Technical Medical Bulletin on scrub typhus for the information and guidance of medical officers.

The research studies on scrub typhus which were initiated by the investigative group sent to the Southwest Pacific by The Surgeon General under the auspices of the U. S. A. Typhus Commission and the Army Epidemiological Board are being continued in New Guinea, particular emphasis being placed upon the development of control measures. Intensive studies are also being conducted by Army, Navy, and U. S. Public Health Service laboratories in an effort to develop a vaccine against scrub typhus.



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DISEASE AND INJURY

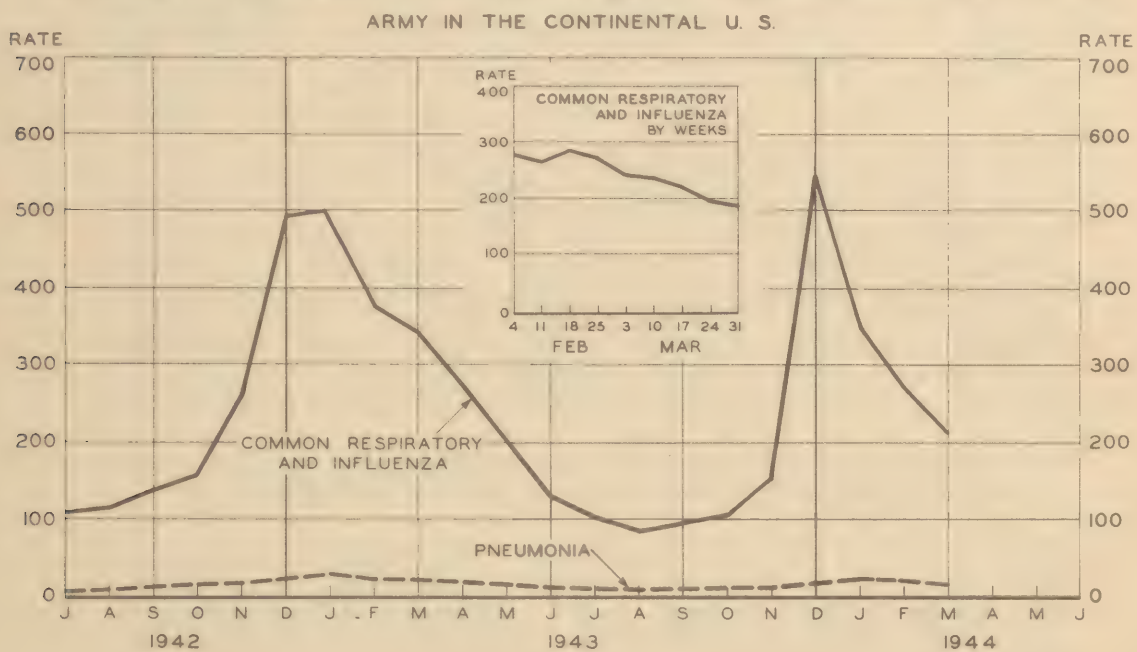
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RESPIRATORY DISEASE

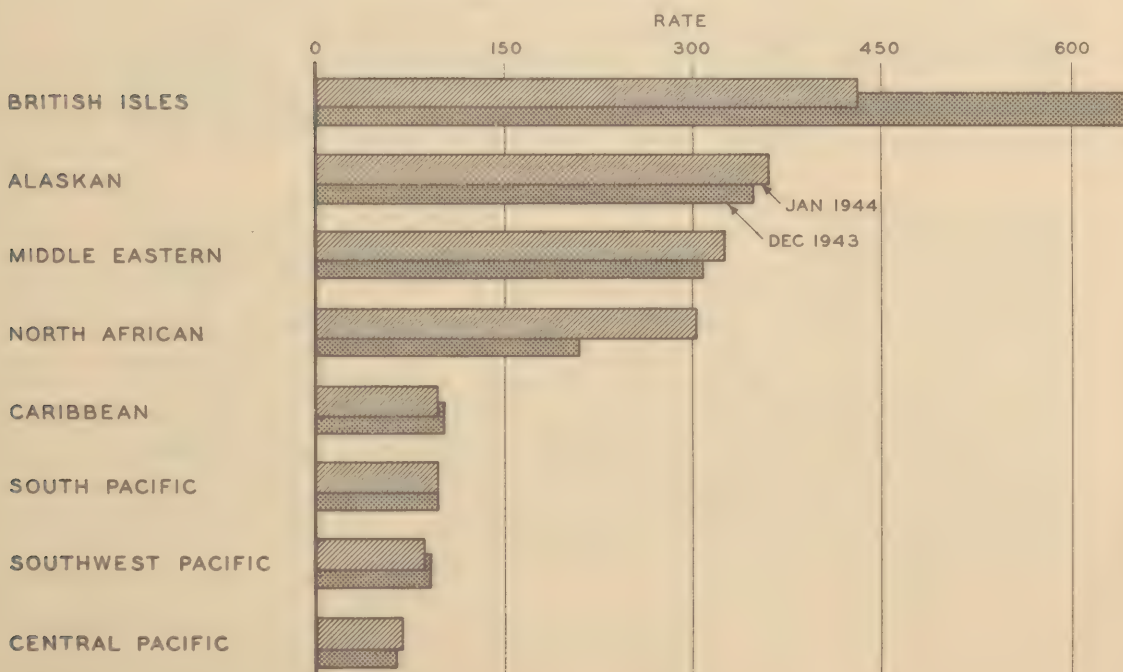
During March admissions for respiratory disease continued their decline in the Continental U.S. The preliminary March rate of 230 is only 40 percent of the peak rate of 565 admissions per 1,000 men per year for December. Moreover, the rate declined further each week during March, as indicated by the inset panel of the first chart below.

The latest information from overseas theaters pertains to the month of January. The bottom chart compares the January and December rates for major overseas commands, except that the Asiatic Theater is omitted for lack of January information. Its December rate was 149 admissions per 1,000 men per year. Only in North Africa was there any substantial increase over the December incidence, and preliminary returns suggest that the rate of 320 for January did not continue through February.

RESPIRATORY DISEASE, ADMISSIONS PER THOUSAND MEN PER YEAR



OVERSEAS COMMANDS



DISEASE AND INJURY

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RECONDITIONING OF MEN WITH MALARIA

In the Southwest Pacific Theater the incidence of malaria, together with its unsolved problems of therapy and reconditioning, prompted the development of an intensive program for reconditioning and retraining men infected with malaria, especially of the relapsing variety. The 6th Army Training Center was organized in August 1943 to ascertain and institute the most satisfactory means of suppressing the clinical symptoms of the disease, and to accomplish the physical and mental reconditioning of personnel from combat units heavily seeded with malaria. The ultimate purpose was to make possible the reassignment of trainees to combat units as effective soldiers. The Center was given a main camp site in a non-malarious area near Rockhampton, Queensland, Australia, with facilities for roughly 6,000 trainees. It has a complete medical service with hospital and outpatient facilities, and a laboratory with specially trained personnel and special equipment for malaria studies. A secondary camp site on the shore near Yeppoon contemplates facilities for an additional 1,000 trainees. The first contingent of trainees, numbering 831 men from the 32nd Division removed from combat some months previous, arrived early in September 1943. Complete physical examinations and blood studies were made and the first phase of training begun shortly thereafter. The reconditioning and retraining program, at first set at 10 weeks, and now 9 weeks, is divided into three phases. During phase I, lasting three weeks, the men are well rested, spending ten hours in bed at night and resting for two hours at mid-day. Light camp fatigue, calisthenics and drill, educational courses, and games which do not require violent exertion, are stressed. Trainees and officers concerned are thoroughly indoctrinated in pertinent aspects of malaria. No liberty outside the camp is permitted. The daily hours of activity are increased from three for the first week to four in the second and five in the third.

Phase II, which consists of three weeks, includes regular rest, especially nine hours in bed each night, local passes, general camp fatigue, camp construction, calisthenics, drill, marches, active sports, and educational courses. The active hours each day are increased to 8 during the final week. Phase III, which at first consisted of four weeks, now consists of three weeks of full training routine, including marches with pack, field maneuvers, a march to the seashore with bivouac enroute, a period at the seashore, a forced march back to camp, and reassignment. Two weeks of the final phase are planned to cover 80 hours of training per week with irregular sleeping hours in order to determine their effect upon the relapse rate from malaria.

Prior to the institution of the special program of the Training Center, the rate of attacks with relapsing malaria was as high as 64 per 1,000 per week in some of the units involved. Many plans of giving atabrine were tested. In the end, two of these were highly recommended: one, the common plan of giving one tablet a day, six days a week; and the other, that of giving five tablets every Monday and Friday. It was found that the strictest supervision was required to ensure the taking of atabrine as ordered, since troublesome relapses were not uncommon in the men with latent malaria when suppressive treatment was carried out in the ordinary way. A detailed plan of "atabrine muster" was worked out which, while elaborate, was practical and highly effective in preventing "break-throughs."

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RECONDITIONING OF MEN WITH MALARIA (Continued)

After the men were thoroughly indoctrinated and the new atabrine muster was put in use, attacks of malaria ceased in two weeks. The protection given by atabrine did not diminish with prolonged administration, as the incidence of attacks remained nil. On the other hand, when atabrine was discontinued, the presence of latent malaria was demonstrated by the appearance of numerous relapses in two to four weeks. Apart from deliberate omissions designed to reveal the value of suppressive treatment, atabrine was continued throughout the period of retraining. The effect of this treatment upon the men was carefully studied. There was some evidence of diminution in appetite while atabrine was being taken. A large proportion of trainees lost a slight amount of weight in the first 6 weeks, but the majority of trainees were over standard weight. Stomach and intestinal upsets occurred in about 1 case per 1,000 trainees. Otherwise, no significant ill effect on the men was uncovered by repeated thorough examinations. Sick call attendance was not affected by atabrine dosage.

Of the first training battalion of 831 men started in September, only 46 soldiers (6 percent) were not physically and mentally fit to enter the final phase of retraining. The remainder completed the course about the middle of November, and 384 (46 percent) were then returned to regular duty. The second training battalion completed the course about the middle of December. Of this group, 638 men (75 percent) were returned at once to regular duty. The formation and retraining of these special battalions is now proceeding regularly.

The work of this training center in a theater of operations, uncomplicated malaria not being a cause for evacuation from overseas, is highly significant, since it demonstrates: (1) the need for the closest possible supervision of antimalarial medication; (2) the safety and efficacy of continued suppression of latent malaria with atabrine; and (3) the possibility of reconditioning and retraining large numbers of men with malaria so that they can be effective soldiers in combat units. This plan also greatly reduces the hospitalization of men with latent malaria.

It is important to note that while the suppressive use of atabrine enables the Army to place and keep on the effective list a large proportion of men with latent malaria, it does not cure the type of malaria which is likely to relapse repeatedly. The problem of curing this disease remains unsolved.

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DISEASE AND INJURY

DISPOSITION OF ADMISSIONS

From reports of admissions and dispositions of patients submitted to The Surgeon General by each overseas theater it has been possible to make some preliminary estimates of the disposition of all admissions to hospital and quarters in overseas theaters during 1942 and 1943. The chart below gives the percentage of admissions returned to duty, dying, evacuated and remaining at the end of 1943.

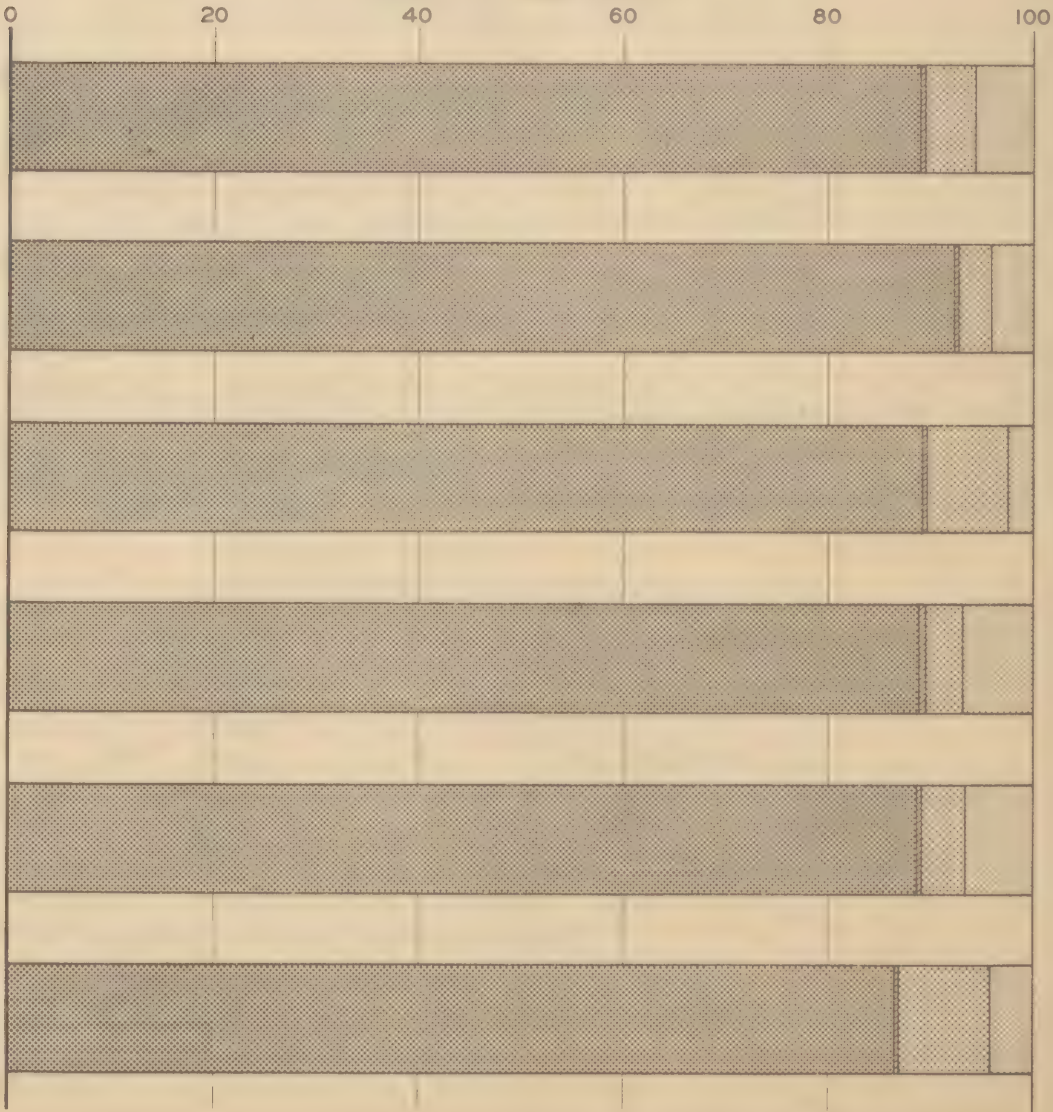
Theaters which themselves receive evacuees from other theaters, where they were originally admitted, may report having returned more men to duty than could be expected from the number of admissions. This is particularly true of the Central Pacific and Middle Eastern theaters. In the absence of reliable information on the numbers of patients involved in such transfers, certain theaters have been combined for purposes of estimation.

On the basis of the preliminary information the Southwest Pacific Theater reports the largest percentage returned to duty, approximately 92 percent of admissions during the two-year period. The average for all theaters is 89 percent. The proportion of admissions which resulted in evacuation is particularly large in the Alaskan Defense Command where the evacuation policy is especially short. Approximately 9 percent of the Alaskan admissions were disposed of by evacuation in comparison with 5 percent for all overseas commands.

DISPOSITION OF 1942-1943 ADMISSIONS IN OVERSEAS THEATERS



PERCENT OF ADMISSIONS



* For Theaters shown.

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DISEASE AND INJURY

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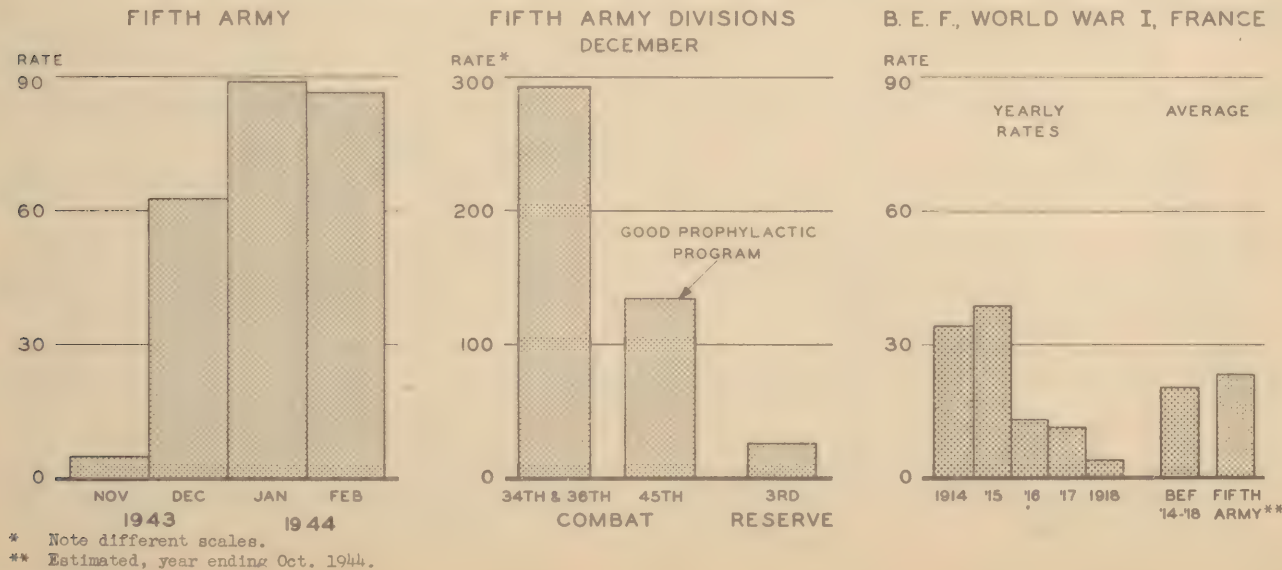
TRENCH FOOT IN ITALY

Trench foot has proved to be a serious problem to the Fifth Army in Italy, and efforts to control its incidence have by no means succeeded under the difficult combat conditions which troops have faced there. As discussed previously in HEALTH (31 December, page 5, and 29 February, page 15), trench foot occurs as a result of prolonged exposure to wet and cold, contributing factors being tight foot-gear, immobility, and dependency, all of which reduce peripheral circulation. Trench foot first appeared in Italy during the week ending 12 November, after a period of cold with continuous rain, and it rapidly increased during December. River crossings, immobility in fox-holes and rock shelters, and lack of adequate supplies of woolen socks all contributed to the problem. Despite the institution of certain corrective measures, and efforts to improve the discipline of troops from the standpoint of foot-care, the first panel below shows how high have been the rates for January and February.

Trench foot is important not only because of the immediate replacement need which it creates, but also because the average case requires a long period of hospitalization. Even a mild case may incapacitate a man for several weeks, and serious cases are prone to secondary infection and to the development of gangrene, with the loss of toes or even a foot. Hence its contribution to the noneffective rate is even more important than its contribution to the admission rate. The prevention of trench foot, like the prevention of malaria, diarrheal diseases, and combat exhaustion, is primarily a command function. It requires careful instruction of personnel in methods of protection and the provision of suitable equipment, especially shoes and socks. Moreover, these measures must be put into effect by unit commanders, and personnel must apply them diligently if adequate protection is to be achieved. The value of good foot hygiene is demonstrated by the experience of the 45th Division during December. In spite of continuous combat duty in the line under conditions predisposing to trench foot, the 45th Division experienced only about half as many cases as either of two other divisions in the line at the same time, as shown in the middle panel below. In this division considerable attention was given to care of the feet and a plentiful supply of dry socks was made available in battalion aid stations. In World War I frost bite and trench foot were important causes of disability in the British Army, especially in the Dardanelles campaign and in France and Flanders. Few medical officers were experienced in handling these conditions, but in time preventive measures were developed and stringently supervised by unit commanders. As may be seen in the right-hand panel, the admission rate declined sharply after the first two winters on the Western front, and the improvement has been credited to the prophylactic program enforced by command.

The 20 percent wool, smooth-ribbed socks initially issued to American soldiers in Italy apparently gave inadequate protection against trench foot. At the time when the first 900 cases had appeared in the Fifth Army a like number of British troops supplied with heavy-ribbed, 100 percent wool socks, and believed to have been similarly exposed, experienced only 50 cases. Proper socks alone cannot provide sufficient protection under the conditions of exposure experienced in Italy, but they are essential in any program of control. It is believed that the use of overshoes or the 12 inch "shoe-pac", in conjunction with heavy all-wool socks, would be an efficient means of reducing the incidence of trench foot.

TRENCH FOOT ADMISSIONS PER 1,000 MEN PER YEAR



* Note different scales.
** Estimated, year ending Oct. 1944.

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DISEASE AND INJURY

DENTAL INFECTION AND INJURY

The incidence of Vincent's stomatitis, or "trench-mouth", has remained relatively low throughout the war to date, especially in foreign theaters. Among troops in the Continental U. S. the highest rate has been that of 4.9 per thousand men per month reported for September 1943. By December the rate had been reduced to 3.8 and since then there has been little change. After a precipitate rise during March and April of 1943, the overseas rate has remained under 3 per thousand per month with a slight tendency to decline. The peak incidence of the war occurred in the British Isles during April 1943, when the admissions for Vincent's stomatitis reached 10.8 per 1,000 men per month. By December this rate had fallen to 4.6 per thousand men per month. The attack rate for Vincent's stomatitis is generally higher in areas where troops are in relatively close contact with the civilian population.

Jaw fractures have occurred more frequently in the overseas theaters than in the U. S., the highest rate being that of 14 per hundred thousand overseas troops in May 1943. Subsequent rates have been more favorable.

Cellulitis, a result of dental infection, has also had a higher rate among troops overseas than among troops in the Continental U. S. Since the extraction rate overseas is less than one-third of that in Continental U. S., it is believed that the greater frequency of cellulitis among overseas troops derives from battle injuries in the region of the oral cavity and from the lesser opportunity for complete dental service in the combat zones.

Osteomyelitis of the jaw bones continues to be consistently low in all areas. With the exception of the overseas rate of 1.5 in August 1943, the rates have varied from .2 to .9 per hundred thousand men per month during 1943 and in 1944.

DENTAL ADMISSIONS PER THOUSAND (OR HUNDRED THOUSAND) MEN PER MONTH
CONTINENTAL U. S. AND OVERSEAS



HOSPITALIZATION

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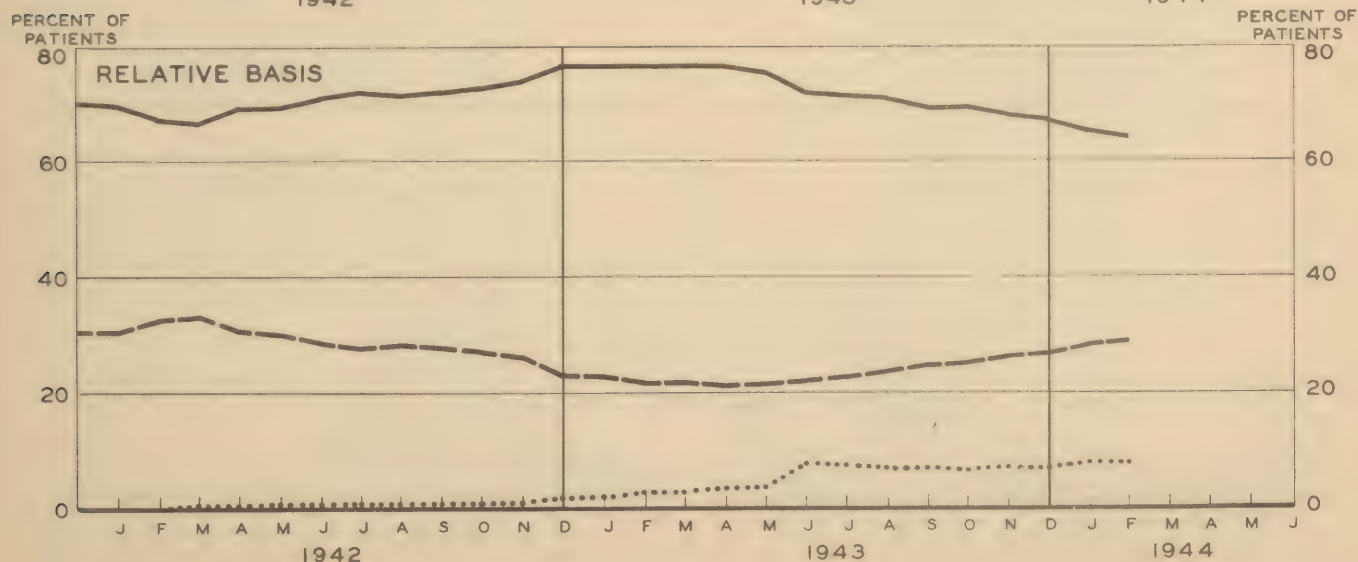
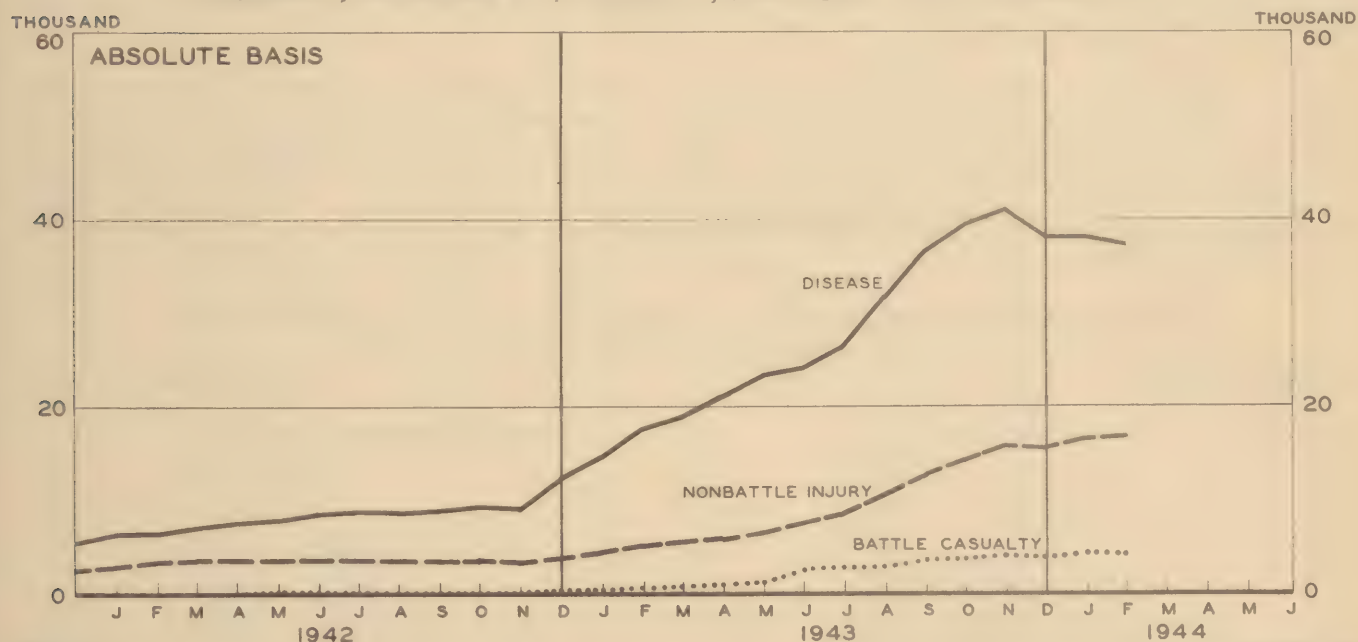
COMPONENTS OF THE GENERAL HOSPITAL LOAD

The number of patients in general hospitals in the United States more than tripled during 1943. In comparison with about 16,000 patients under treatment at the beginning of the year, 58,000 were remaining at the end of February 1944. By far the largest component of the patient load is the disease portion, but the proportion of such patients declined steadily during 1943 as the proportion increased for patients with nonbattle injuries. The battle casualty component has remained relatively constant after its sharp rise during June. The charts which follow depict the growth of each of the three major components of the hospital load since January 1942, the number of patients in each category being shown in both absolute and percentage form.

The available data on the components of the hospital load pertain to all patients remaining under treatment, not merely to those occupying beds, and thus include those on sick leave, on furlough or A.W.O.L., and those who are in convalescent facilities. The proportion of patients in these categories has been relatively constant. At the end of February 1944 it was approximately 9 percent of the total number remaining.

For the latest date shown on the charts there were roughly 37,400 patients suffering from disease, 16,700 from nonbattle injuries, and 4,100 from battle casualties. Approximately 20,000 of the patients were evacuees from overseas theaters.

PATIENTS IN GENERAL HOSPITALS DISEASE, NONBATTLE INJURY, AND BATTLE CASUALTY



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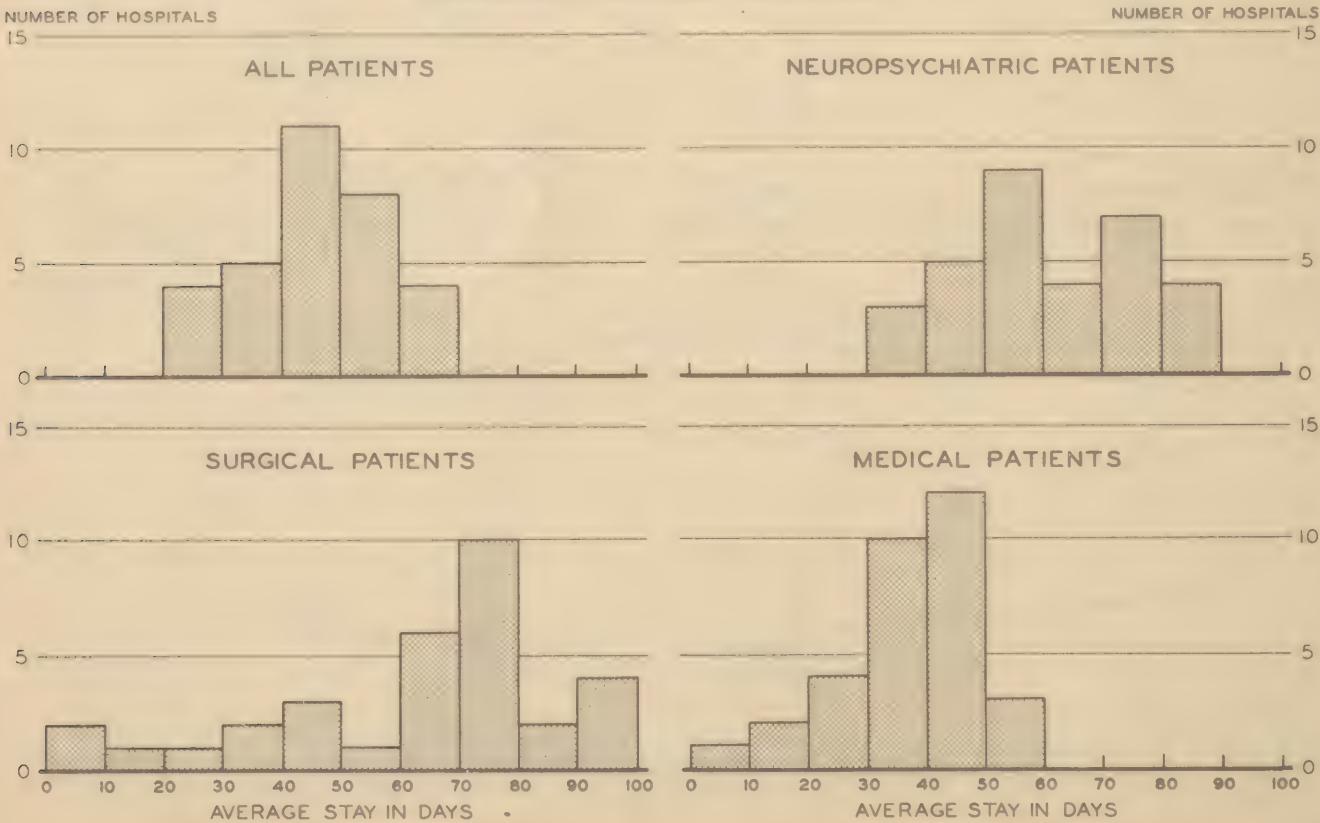
HOSPITALIZATION

AVERAGE LENGTH OF STAY IN GENERAL HOSPITAL

Establishing workload studies for hospitals is a difficult problem since the activities of the different hospitals may vary considerably. Nevertheless, the average length of time which similar types of patients remain in hospitals should give a rough basis for comparisons. In view of the anticipated pressure upon general hospital facilities it is especially important that excessively long hospitalization be avoided. For this reason preliminary tabulations have been made to show the extent of the variations among the individual named general hospitals. In evaluating this material it should be borne in mind that some general hospitals are acting chiefly as station hospitals and are treating a larger proportion of minor and uncomplicated cases. This is true of several of the hospitals at the top of the ranking list shown on the next page. The data for December show the length of hospitalization for men discharged from named general hospitals in that month, and classified into three broad diagnostic categories embracing neuropsychiatric, surgical, and medical patients. Categories as broad as these cannot insure close comparability among individual hospitals. Especially is this true of the "surgical" cases which include those for whom only diagnostic procedures were undertaken as well as patients undergoing surgery requiring many months of treatment. This consideration applies particularly to the hospitals designated as specialized surgical centers where a preponderance of difficult surgical cases requiring protracted post-operative care is more liable to occur. This qualification should be kept in mind if hospitals are compared solely on the basis of the length of stay of their surgical cases. A purely administrative comparison of hospitals on the basis of length of stay necessarily assumes that all patients are adequately treated. This assumption may not hold in every case. For example, a hospital may stress rapid discharge of neuropsychiatric or other patients at the expense of adequate treatment. For reasons such as these, judgments are not pressed here simply on the basis of the length of stay of a single type of patient. However, if a hospital retains each type of patient longer than average there is a strong suggestion that many of its patients may be remaining too long.

The average patient discharged from a general hospital in December had been hospitalized for 44 days in a named general hospital, if the experience of the receiving and evacuating hospitals is excluded as atypical. The average was 59 days for neuropsychiatric cases, 55 days for surgical cases, and 36 days for medical cases. The distribution of the hospitals about each one of these averages is shown graphically below. The method by which these data were obtained is much more reliable than that employed in preparing the distribution which appeared in HEALTH for 29 February.

LENGTH OF STAY IN GENERAL HOSPITALS BY TYPE OF PATIENT
EXPERIENCE OF DECEMBER DISCHARGES



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AVERAGE LENGTH OF STAY IN GENERAL HOSPITALS (Continued)

In an effort to make at least tentative comparisons among individual hospitals, each of the 32 general hospitals under study was ranked separately on the average length of stay of its patients in each of the three broad diagnostic groups. Only four ranks were recognized. In each instance the eight hospitals having the shortest length of stay were accorded the rank of one, the next eight a rank of two, the third a rank of three, and the last eight, with the longest average stay, a rank of four. In the table which follows, the ranks are presented in detail together with the sum of the three ranks. The suggestion is strong that hospitals at the bottom of the list with totals of 11 and 12 are probably keeping some of their patients too long.

GENERAL HOSPITALS RANKED ACCORDING TO AVERAGE
LENGTH OF STAY OF VARIOUS TYPES OF PATIENT

Name	Type of Patient			Sum of Ranks
	Neuro-psychiatric	Surgical	Medical	
Brooke	1	1	1	3
Darnall	2	1*	1	4
Deshon	2	1	1	4
Hoff	1	1	2	4
Ashburn	2	1**	2	5
Fitzsimons	3	1	1	5
Wm. Beaumont	2	1	2	5
Bruns	3	2	1	6
Lawson	1	4	1	6
McCaw	1	3	2	6
Schick	1	2	3	6
McCloskey	1	2	3	6
Torney	1	3	2	6
Billings	3	3	1	7
Tilton	2	3	2	7
Walter Reed	4	2	1	7
Borden	4	1	3	8
Hammond	3	2	3	8
Oliver	2	2	4	8
O'Reilly	2	4	2	8
Percy Jones	1	4	3	8
Valley Forge	4	3	2	9
Ashford	3	3	3	9
Baxter	4	2	3	9
Finney	3	3	3	9
Bushnell	2	4	4	10
Fletcher	4	2	4	10
Moore	3	4	4	11
Nichols	3	4	4	11
Winter	4	3	4	11
Kennedy	4	4	4	12
Woodrow Wilson	4	4	4	12

* Less than 50 cases, the average duration of which was reported as 8.8 days.

** Ashburn reported the average stay for 511 surgical cases as 7.5 days.

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HOSPITALIZATION

ASF STATION HOSPITALS

The rapid transfer of troops overseas precipitates a series of questions about the number of station hospital beds in the Continental United States and the utilization of personnel at Army Service Forces station hospitals. The present study is based on a sample of 133 Army Service Forces station hospitals which account for approximately 80 percent of the total station hospital beds.

On the basis of more than a decade of experience, the Army planned for the construction of station hospital beds at 4 percent of troop strength to be served. The mobilization plans for construction of the cantonment-type of station hospital involved a reduction to 72 square feet per bed from the previous standard of 100 square feet. Since the beginning of 1944 there has been a sufficient surplus of beds to permit resumption of the previous, and professionally more desirable, standard of 100 square feet. This parallels other excess Army facilities arising from the same causes.

At the end of February 1944, troop strength in the Continental United States, less Army Air Force troops, amounted to 3,000,000. On a 4 percent basis, this troop strength called for 120,000 beds. There were approximately 150,000 ASF station hospital beds in fixed installations reported on this date. Hence the excess in station hospital beds is approximately 30,000, if no allowance is made for delays in closures attributable to uncertainties regarding prospective troop increases at particular posts.

During World War II, station hospital occupancy has fluctuated around 3 percent of strength. When allowance is made for a dispersion factor of approximately 20 percent, because of the need for isolation wards, special facilities for female military personnel, and other factors, total requirements based upon current experience amount to 3.8 percent of troop strength or just under the original estimate of 4 percent.

The following table presents the basic data on Army Service Force station hospitals by size groups as of the end of February 1944:

Size Group (Normal beds)	No. of Hospitals	Normal Beds	Beds Occupied	Total Personnel	Med. Officers	Nurses	Enlisted Personnel
75-250	36	5204	2761	3875	245	275	2414
251-500	19	6499	3064	4199	229	241	2545
501-1000	20	15304	9768	10197	518	644	6230
1001-1500	23	29769	17069	16199	907	1164	8422
1501-2000	21	35530	18708	16732	831	1203	9661
2001-and Over	14	32166	14995	14108	802	1000	7675
TOTAL	133	124472	66365	65310	3532	4527	36947

The foregoing data highlight the following facts:

1. Although hospitals of less than 500 normal beds account for about 40 percent of all station hospitals, they account for less than 10 percent of the normal beds and less than 10 percent of the beds occupied. The importance of large station hospitals in the Army Service Forces is underlined by the fact that 50,000 out of 66,000 beds occupied were in station hospitals of more than 1,000 normal beds. Fifty percent of the 66,000 patients were in hospitals of 1,500 beds or larger.

2. The highest occupancy at the end of February was 64 percent in the station hospitals having 501-1,000 normal beds, while the lowest occupancy was found in the largest station hospitals, those over 2,000 beds, which had a ratio of less than 47 percent occupied. The average occupancy for the country was 53 percent. With the exception of those having 1501-2000 beds, each class had several hospitals with occupancy ratios of 90 to 100 percent or even more.

3. Total personnel assigned to these hospitals amounted to 65,000. On the basis of occupancy, the ratio was 100 personnel per 100 beds. In hospitals of less than 1,000 normal beds, the ratio of personnel to beds occupied was somewhat greater, while the reverse was true in the larger station hospitals. The extent of the economies associated with size can be illustrated by the fact that in the hospitals under 501 beds the ratio is approximately 140 personnel per 100 beds occupied while in the size group of 1,001 beds or more the ratio fluctuates between 89 and 95 personnel per 100 beds occupied.

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HOSPITALIZATION

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ASF STATION HOSPITALS (Continued)

Similar economies attributable to size are present in the utilization of Medical Corps officers and nurses. Hospitals of 500 beds or less are currently using between 7.5 and 8.9 Medical Corps officers per 100 beds occupied while the larger hospitals operate with approximately 5 Medical Corps officers per 100 beds occupied. In the case of hospitals of 500 beds or less, the ratio for nurses varies between 8 and 10 per 100 beds occupied, while in the larger hospitals it fluctuates around 6.5 per 100 beds occupied.

Further light is thrown on ASF station hospitals by a study of trends during the past year. On the basis of 100 square feet per station hospital normal bed, there was a shortage of approximately 25,000 in March 1943. By February 1944, this shortage had been converted into an excess of approximately 30,000. Time must elapse before station hospital wards are closed down, but the size of the excess seems to indicate some delay in readjusting station hospital beds to present requirements.

The following table shows occupancy trends during the past year:

BEDS OCCUPIED IN ASF STATION HOSPITALS

<u>Service Command</u>	<u>March</u> <u>1943</u>	<u>July</u> <u>1943</u>	<u>December</u> <u>1943</u>	<u>February</u> <u>1944</u>
TOTAL	92864	78762	84372	66365
I	2981	2157	2348	1800
II	4562	3896	3631	2718
III	8374	7202	8718	7054
IV	25172	22488	23762	19559
V	6543	4877	5731	3706
VI	2692	2312	2843	2631
VII	9435	6982	6846	4968
VIII	18971	17287	16606	13864
IX	14134	11561	13887	10065

The trend in hospital admissions is definitely downward, amounting to a shrinkage of about 30 percent since March 1943. Declines took place in every service command, although the most marked changes occurred in the Second, Fifth, and Seventh.

During this period when the number of patients was declining, the personnel assigned to station hospitals was likewise decreasing, as indicated by the following table:

TOTAL PERSONNEL IN ASF STATION HOSPITALS

<u>Service Command</u>	<u>March</u> <u>1943</u>	<u>July</u> <u>1943</u>	<u>December</u> <u>1943</u>	<u>February</u> <u>1944</u>
TOTAL	90119	93080	70968	65310
I	3323	3172	2213	1997
II	4772	4926	2984	2841
III	7985	8148	6754	6247
IV	27921	28329	20118	18134
V	5304	4885	3966	3720
VI	2702	3148	3184	2583
VII	8619	7714	5913	5202
VIII	16464	17230	14644	13838
IX	13029	15528	11192	10748

In general, the decline in total personnel kept pace with the decline in the patient load. The reduction of about 25,000 personnel in Army Service Force station hospitals did not occur through the closing down of station hospitals but rather through the withdrawal of personnel from hospitals which continued to operate. Of 137 hospitals in the sample, only 4 were closed during the course of the year. It should be emphasized that it is easier to care for 90,000 patients with 90,000 personnel than it is to care for 60,000 patients with 60,000 personnel if the patients and personnel are spread through the same number of hospitals.

During the year the patient census declined by about 30 percent, and total personnel declined by about the same amount. There was a decline, however, of about 50 percent in nurses. No comparable series is available for Medical Corps officers. The decline in nurses

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HOSPITALIZATION

ASF STATION HOSPITALS (Continued)

is noteworthy. This is reemphasized in the following table which shows the key ratios of different classes of personnel to beds occupied for February 1944. The fact that there were only 6.8 nurses per 100 beds occupied is conspicuous. Especially striking is the fact that the Seventh Service Command was forced to get along with 4.5 nurses per 100 beds occupied.

Service Command	Personnel per 100 Occupied Beds			Enlisted Personnel per 100 Total Personnel
	Total	Medical Officers	Nurses	
Average	98.4	5.3	6.8	56.7
I	110.9	7.8	10.0	51.9
II	104.5	5.7	12.4	60.0
III	88.6	4.7	8.1	56.6
IV	92.7	5.1	6.2	53.5
V	100.4	5.6	8.6	60.0
VI	98.2	7.0	7.9	51.4
VII	104.7	5.1	4.5	61.1
VIII	99.8	5.4	6.0	57.9
IX	106.8	5.2	6.4	57.8

The foregoing data emphasize the fact that the Third, Fourth, and Eighth Service Commands, with relatively low percentages of small station hospitals to total station hospitals, tend to have the most efficient utilization of personnel which is a reflection of the fact that it is more economical to operate large station hospitals. Any comparison among service commands must take cognizance of this fact. When allowance is made for this factor no conspicuous differences are found among service commands in the utilization of station hospital personnel.

The foregoing analysis can be summarized as follows:

1. To insure that station hospitals have their capacities and staffs adjusted to the troop strength actually served, the average number of beds occupied, rather than the normal constructed beds, should be used as a guide. This is particularly true of a period of rapid fluctuations in troop strengths.

2. Available data disclose the desirability of a substantial reduction in the present authorized number of station hospital beds.

3. There is a marked confirmation in the data that medium and large-sized station hospitals are more economical to operate than small station hospitals. Economies in medical personnel and facilities are dependent, however, on the War Department taking steps to consolidate small troop concentrations.

4. In comparing the present experience to the personnel guides recently prepared by the Office of The Surgeon General the following conclusions are warranted at this time:

- a. The total personnel is approximately the same as that allowed by the personnel guides.
- b. There may be available for reassignment between 200 and 300 Medical Corps officers, after allowance has been made for dispensary and other non-hospital work.
- c. There is a clear deficiency of nurses.
- d. Additional margins exist for the replacement of enlisted personnel by civilians to the extent that the local labor market conditions permit.

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HOSPITALIZATION

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HOSPITALIZATION OVERSEAS

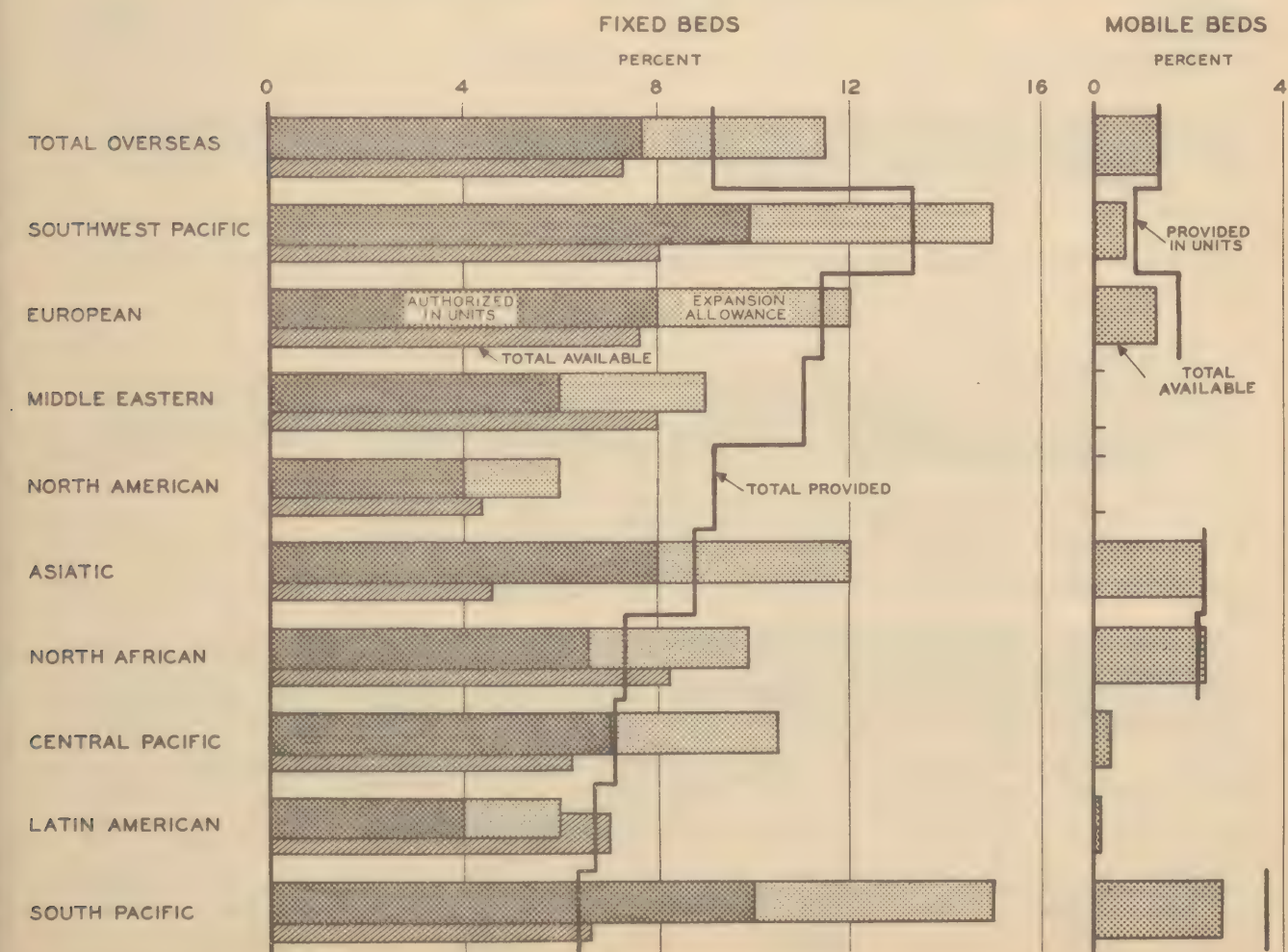
The chart below, and to the left, shows for each theater, as a percentage of the U. S. Army strength there, the authorization for beds in fixed hospital units, an expansion allowance up to 50 percent of the authorization for fixed units, all fixed beds available, and all fixed beds provided. The theaters are ranked according to the percentage of fixed beds provided. The term "provided" is used to denote all facilities, whether fixed units or expansion equipment, under movement orders, in transit, and in storage in the theater, as well as those actually ready for use. Beds provided are less than those authorized in fixed units only in the South Pacific Theater, although the provision for the Central Pacific is only slightly above the authorization for fixed hospital units.

The situation with regard to fixed beds available in ETO is as favorable as shown only because of changes in reporting during February and part of March. In this period all beds, those set up and operating together with all others in the theater, were reported as available. During the week ending 17 March the reports reverted to the previous basis of giving only those beds actually in operation. As a result the ratio of fixed beds available to strength decreased substantially.

The North African, Latin American, and South Pacific Theaters, which report more available beds than have been provided, are evidently including in their bed counts facilities in local hospital installations, captured equipment, beds obtained from Allied forces, and non-medical equipment.

The second panel of the chart below shows, as a percent of theater strength, the number of beds in mobile units provided up to 1 March and also the number reported as available on 26 February. In North Africa some of the beds reported as mobile are being used as fixed. The mobile beds provided exclude shipments of expansion and replacement equipment. Several theaters report as available slightly more mobile beds than have been provided, suggesting that certain units may have found it necessary to utilize expansion facilities.

BEDS AS PERCENT OF STRENGTH, 1 MARCH 1944



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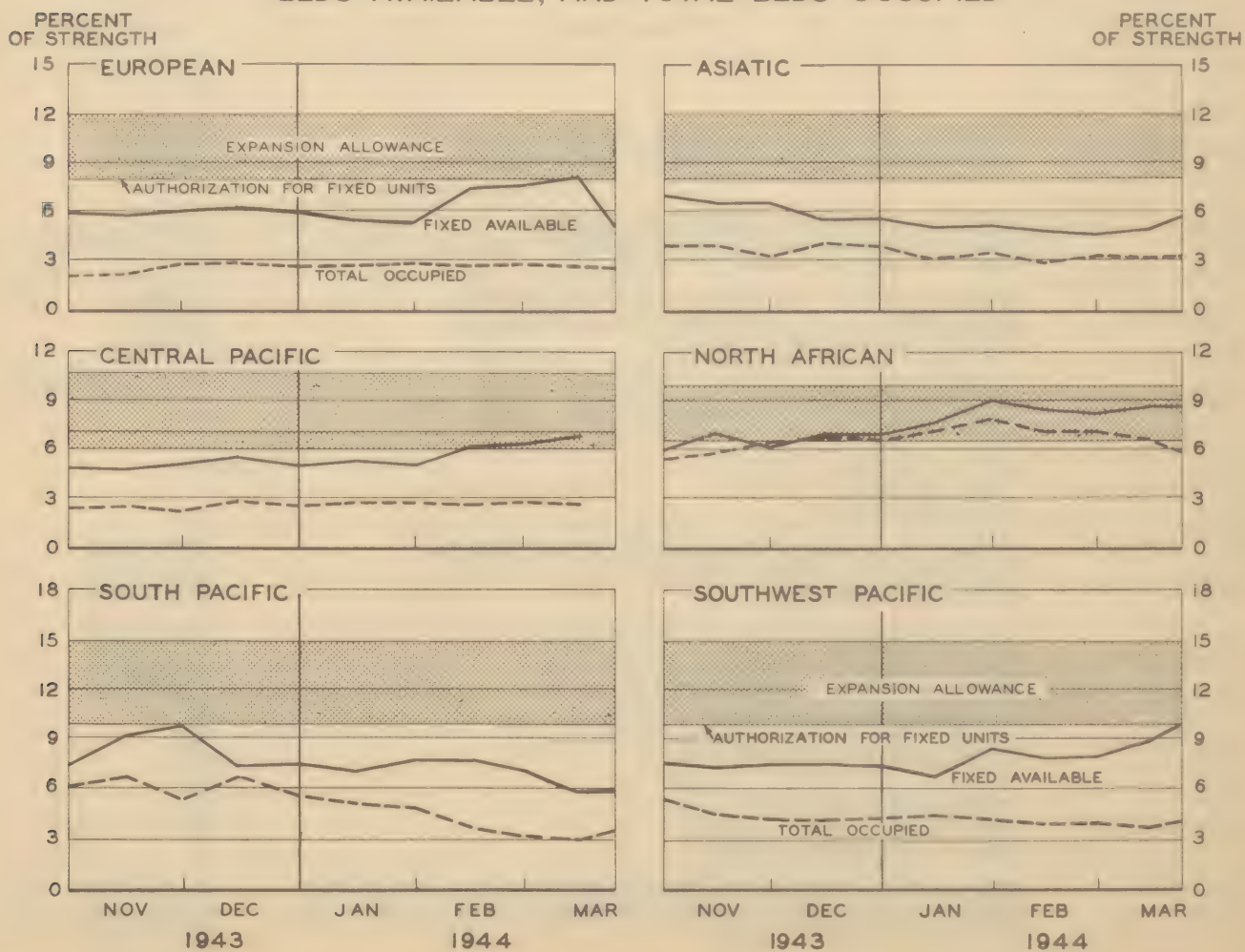
HOSPITALIZATION

HOSPITALIZATION OVERSEAS (Continued)

In comparison with the five percent of U.S. strength currently provided in the U.S. for station plus general hospitals, some overseas theaters require 10 percent or more in beds in fixed hospital units (station, general, and field hospitals). The question of theater needs is under continual review and certain changes have recently been recommended. Estimates of need must take into consideration not only tactical activity, but also the probable incidence of disease and nonbattle injury, facilities for the evacuation of patients needing extended periods of hospitalization or special treatment, and the presence of prisoners of war and civilians requiring hospitalization. In the Asiatic Theater, additional provision is made for hospitalization in support of Chinese units in India which are excluded from the U. S. strength.

For the more active theaters the panels below detail the recent changes in fixed hospitalization. Each panel shows the authorized percentage of beds in fixed hospital units, all available fixed beds (including expansion beds), and all patients in hospital in the theater. In each case the figures are expressed as percentages of strength. The authorization shown for the Asiatic Theater pertains to the hospitalization of American troops only. Over and above the authorization for fixed hospital units, use of expansion equipment is authorized to the extent of an additional 50 percent, which is shown by the shaded zone in each panel. However, the use of such facilities necessitates a degree of utilization of personnel not intended by tables of organization except as an emergency measure. All occupied beds in the theater are shown in place of merely occupied fixed beds, and thus compared with available fixed beds, in order to show what the load would be were all mobile facilities required to move in support of tactical operations. It is desired that there be a fixed bed for every patient in hospital in case of need, although it is recognized that at any time the likelihood is that at least some hospital patients can be cared for in mobile units. The sudden increase in the fixed beds available in the European Theater in February, and the decrease in March, were caused by administrative changes in reporting, beds not actually in operation having been included in the count for February.

AUTHORIZATION FOR FIXED BEDS, EXPANSION ALLOWANCE, ALL FIXED BEDS AVAILABLE, AND TOTAL BEDS OCCUPIED



HOSPITALIZATION

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EVACUATION OF PATIENTS FROM OVERSEAS

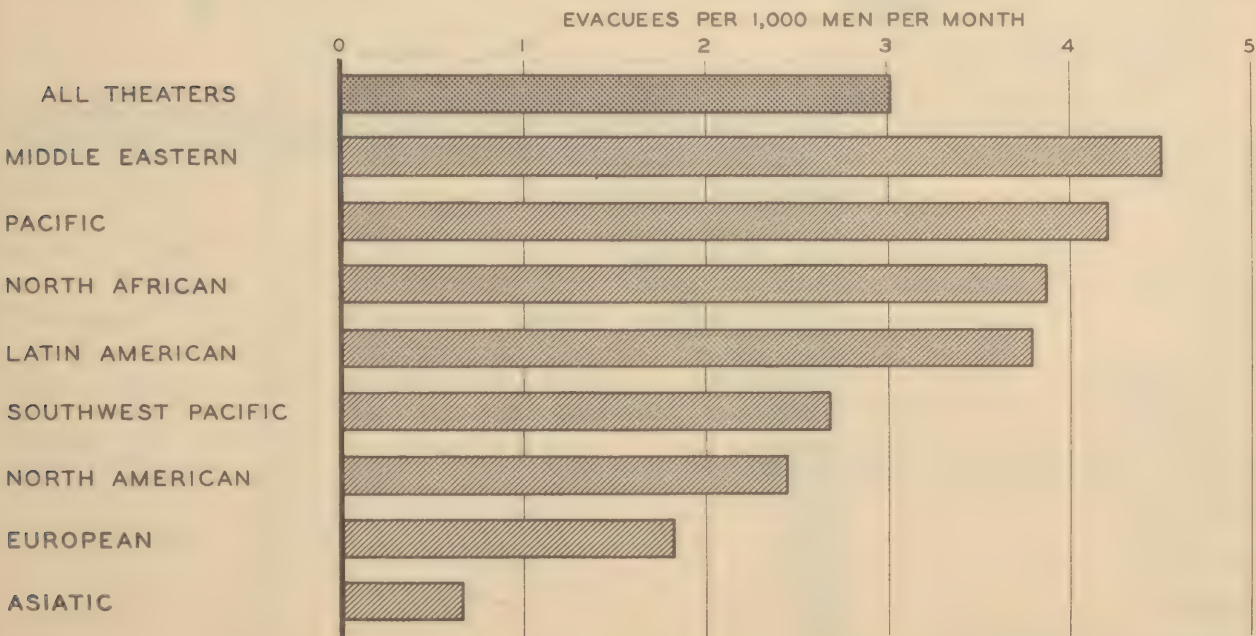
During March, according to provisional estimates, about 8,800 evacuees were received in the U. S. from overseas theaters. In view of the rapidly increasing overseas strength this number represents only about 2.8 per 1,000 overseas strength per month.

In tabulating evacuees by theater of origin certain difficulties are experienced because of confusion between theater of origin and theater finally evacuating the patient to the U. S. However, if the South and Central Pacific sections are combined into the Pacific Theater, the largest source of error is removed. The chart at the bottom of the page gives average rates of evacuation by theater during November and December. The total count is somewhat short of that employed in the charts above, based upon transportation reports, and the average rate of 3.0 for November and December is considered somewhat low in consequence.

PATIENTS EVACUATED FROM OVERSEAS



BY THEATER, NOVEMBER - DECEMBER 1943



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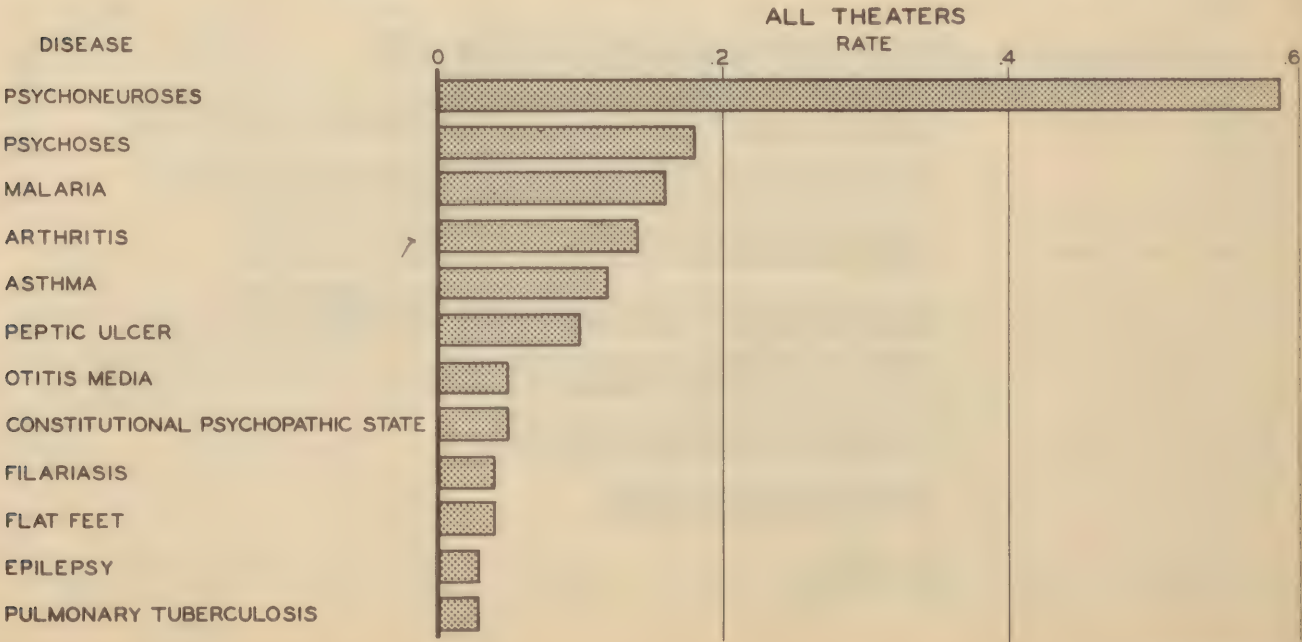
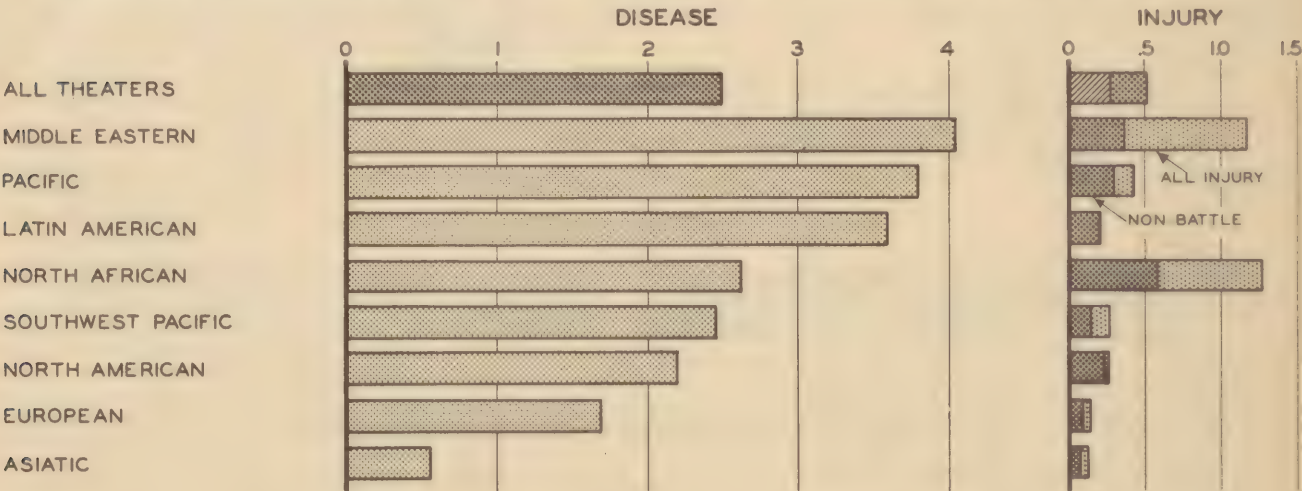
CAUSES OF EVACUATION

The tabulation of evacuees by theater shown on the previous page also provides the most complete information yet available as to causes of evacuation to the U. S. Disease accounts for 83 percent of the evacuees received in November and December, nonbattle injury for 9 percent, battle casualty for 7 percent, and "battle injury" for less than 1 percent. The term "battle injury" is used to denote traumatism sustained in the course of combat duty but not from enemy weapons.

The top charts below array the theaters according to their rates of evacuation for disease and also for injury. In the right-hand panel the battle injuries are combined with the battle casualties. The rates of evacuation for disease were especially high for the Middle Eastern, the Pacific, and the Latin American theaters. The European and Asiatic theaters have long evacuation policies and their rapid increases in strength have also tended to depress their rates of evacuation. Evacuation for injury was high only in North Africa.

At the bottom of the page are ranked the leading diseases responsible for the evacuation of patients during the period under review. About a third of all patients evacuated for disease were neuropsychiatric patients, chiefly those diagnosed as psychoneurotic. This percentage agrees quite closely with similar estimates derived from other material. The rates for this type of evacuee were especially high in North Africa, the Middle East, the Southwest Pacific, and the Pacific Theater. The psychoses were also an outstanding cause of evacuation. Malaria caused 733 or 6 percent of the evacuations for disease, the rate being especially high for the Pacific Theater. There were also 178 patients with filariasis, principally from the South Pacific.

EVACUEES FROM OVERSEAS THEATERS PER THOUSAND MEN PER MONTH



MORTALITY

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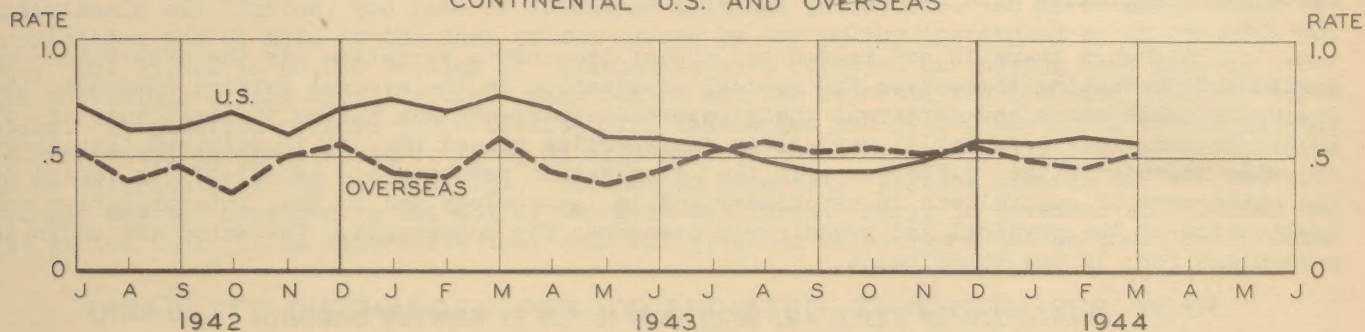
DEATHS FROM DISEASE

Since the death rates from disease for troops in the U. S. and for those overseas have approached a common value of about .5 to .6 deaths per 1,000 men per year there has been very little change in the trend of either rate. The provisional estimates for March are .6 for the U. S. and .5 for all forces abroad.

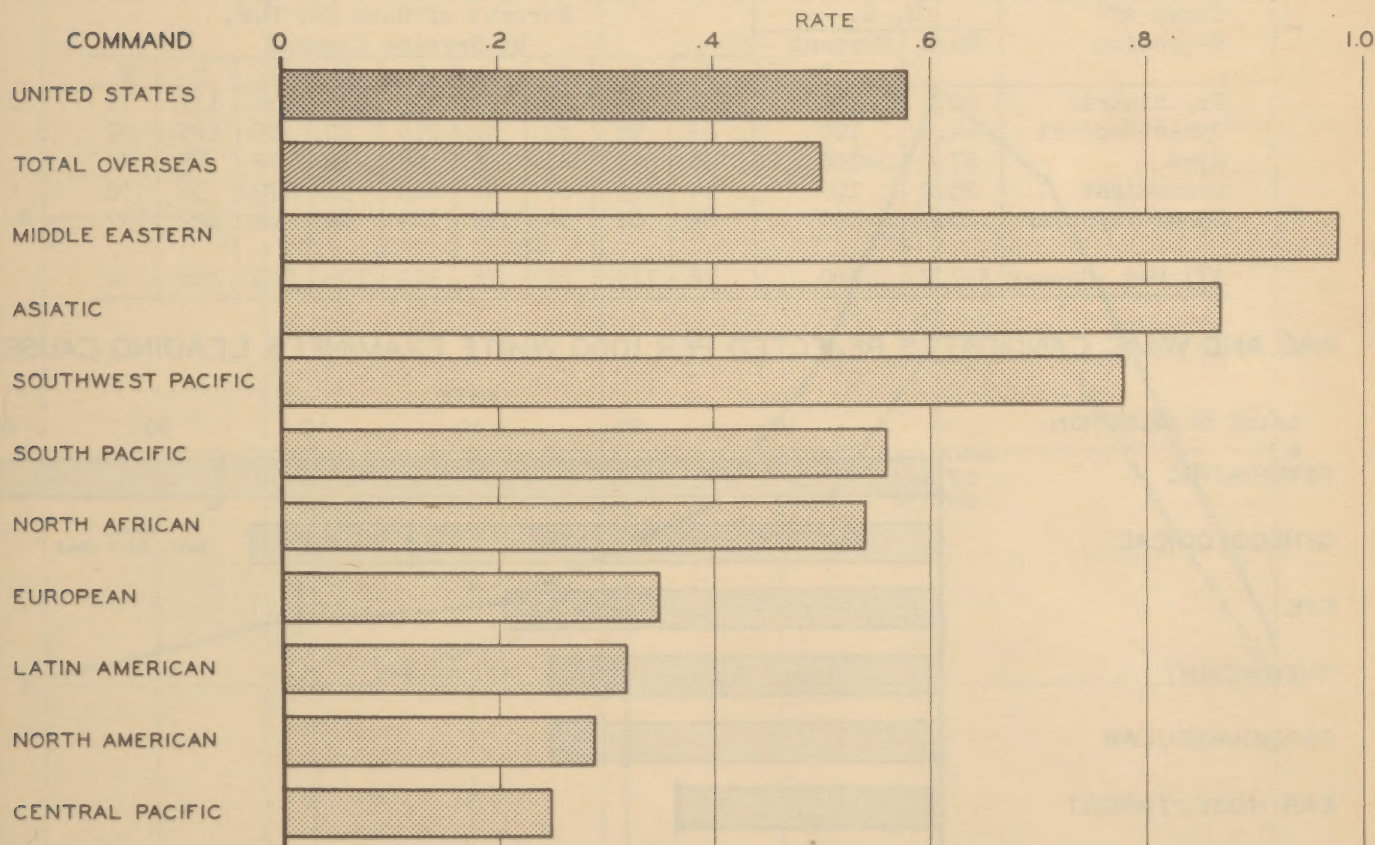
In several areas, notably the Central Pacific, North America, Latin America, and Europe, the average 1943 death rate was well below the corresponding U. S. rate, presumably because of the selection of troops for overseas duty. The chart below compares the average 1943 rates for the various theaters with the South Pacific and Central Pacific sections of the Pacific Theater shown separately. In three theaters considerably higher death rates were observed, primarily because of infectious and parasitic diseases. In the Middle East, where the absolute number of deaths was small, no particular disease was especially outstanding as a cause of death. In Asia malaria was a relatively large factor, and in the Southwest Pacific a third of the deaths were attributed to scrub typhus. In these three theaters infectious and parasitic diseases accounted for about half of the death rates, although for all troops overseas only a third of the disease deaths were so classified.

DISEASE DEATHS PER THOUSAND MEN PER YEAR

CONTINENTAL U.S. AND OVERSEAS



U.S. AND OVERSEAS THEATERS, 1943



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MEDICAL REJECTION OF WHITE WAC CANDIDATES

During the last quarter of 1943, about 32 percent of the white WAC candidates who were medically examined were rejected for physical or psychiatric reasons. This figure is similar to that recorded for white WAAC candidates examined in May, June, and July of 1943, the more rigorous WAC standards and examination procedures having been partly offset by a somewhat younger age distribution associated with the replacement of the previous 21-44 year age limits by the new 20-49 limits. It has also been suggested that the opportunities for assignment with the Army Air Forces may have tended to attract a greater proportion of women of superior physical qualifications. During the period May-July 1943, psychiatric and gynecological examinations were not done routinely. Since then an attempt has been made to make them routine procedures and to obtain the services of qualified specialists for this purpose. In connection with the rate for psychiatric defects it should be borne in mind that it excludes mental deficiency, since candidates are given a mental alertness test prior to the medical examination. The chart below compares WAC and WAAC rejection rates by cause.

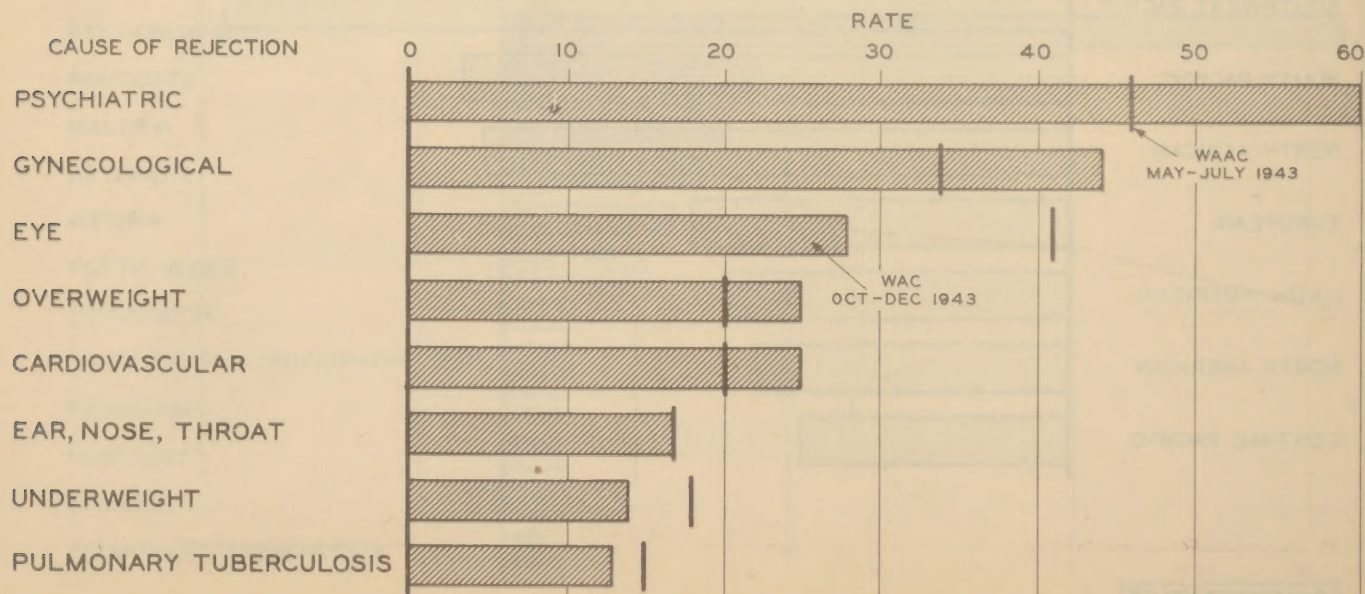
Age exercises an important influence upon the medical rejection rates, especially for gynecological and cardiovascular defects. The rejection rates for candidates aged 40 or more are three times as high as the average rate for all candidates for gynecological defects, and more than twice as high for cardiovascular defects. For all causes the rate is about 175 percent of that for candidates of all ages, according to a sample study of 16,000 white WAAC candidates examined during April-June 1943.

Although there is no reason to expect tremendous variation in the attributes of candidates presenting themselves for medical examination in the several service commands, the following table shows how different their reported experience was during the last quarter of 1943. In addition to probable variations in reporting procedures it is believed that there are wide administrative differences in the examination procedures, especially in regard to the employment of specialists in psychiatry and in gynecology and to the interpretation and application of the physical and psychiatric standards for acceptance. The rates are shown in percentage form in the table below.

VARIATION IN WHITE WAC REJECTION RATES BY SERVICE COMMANDS
FOR SELECTED CAUSES OF REJECTION, OCT-DEC 1943

Cause of Rejection	U. S.		Percent of Rate for U.S. by Service Command								
	Rate	Percent	1	2	3	4	5	6	7	8	9
Psychiatric	60.2	100	161	94	12	73	95	205	54	137	71
Gynecological	44.4	100	63	98	82	82	218	40	159	105	99
Eyes	27.6	100	58	244	111	60	68	92	72	65	72
Overweight	25.2	100	54	205	87	46	113	91	172	36	70
Cardiovascular	25.0	100	84	62	94	119	124	84	68	122	152
All Med. Causes	317.3	100	76	119	87	78	122	105	103	108	96

WAC AND WAAC CANDIDATES REJECTED PER 1,000 WHITE EXAMINEES, LEADING CAUSES



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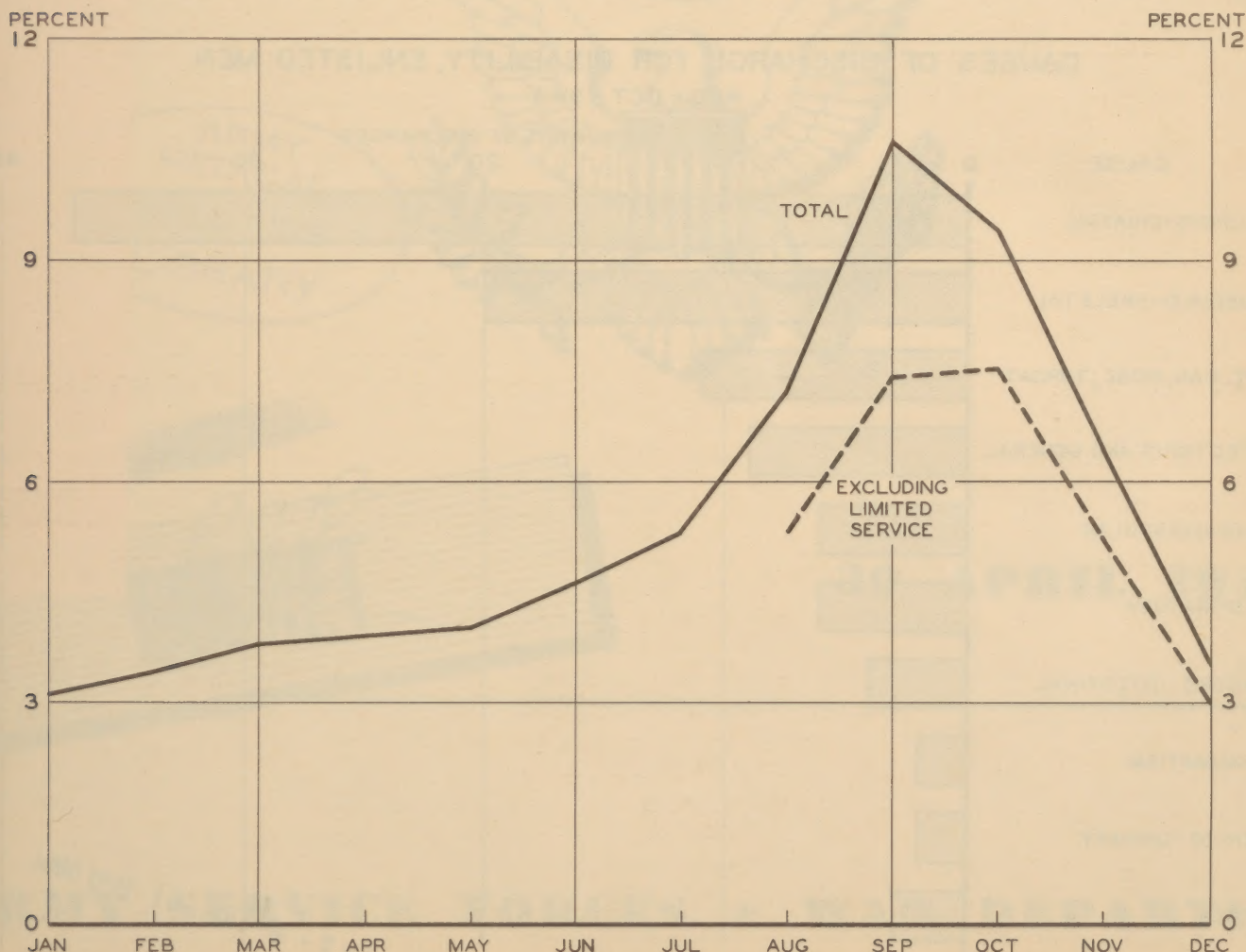
DISABILITY DISCHARGES DURING 1943

More than 350,000 enlisted men were discharged from the Army for disability during 1943. In addition to these discharges, effected under Section II of AR 615-360, there were about 140,000 honorable discharges for inaptness (Section VIII) or for the convenience of the government because of physical or mental limitations (Section X). These discharges total about 8 percent of the average enlisted strength during the year, the disability portion representing 6 percent. The present analysis is confined to disability discharges (Section II).

The rate of discharge for disability rose gradually during the first half of 1943 from about .3 percent per year in January to about 5 percent in July. On 14 July WD Circular No. 161 directed that the category "limited service" be abolished and that men so classified, whose records indicated that they did not meet the current physical or mental standards for induction, be examined and discharged if they failed to meet the minimum standards. Largely as a result of this circular and supplementary directives the rate rose sharply in August to 7 percent and reached a peak of 11 percent per year in September. The trend of the rate during 1943 is shown in the chart below. The lower line there excludes discharges of limited service personnel declared not adaptable for military service.

It is believed that men in the limited service category were rather quickly reviewed and that many were discharged as soon as possible. Perhaps because the number of such individuals was limited, the rate of discharge declined in October. No more than a rough approximation can be made of the loss of men caused by the policy instituted by WD Circular No. 161, but 55,000 to 60,000 Section II discharges were reported as having been granted under the provisions of the circular, and many others not so reported are believed to have taken place. In addition perhaps 5,000 Section VIII discharges and 35,000 Section X discharges may be attributed to the circular. Thus, if allowance is made for Section II discharges believed to be attributable to Circular 161, but not so reported, perhaps upwards of 100,000 discharges may be credited to the policy which it set forth. Early in November WD Circular No. 293 stated that "It is imperative that each enlisted man be assigned to the position in which

DISABILITY DISCHARGES PER 100 ENLISTED STRENGTH PER YEAR



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MISCELLANEOUS

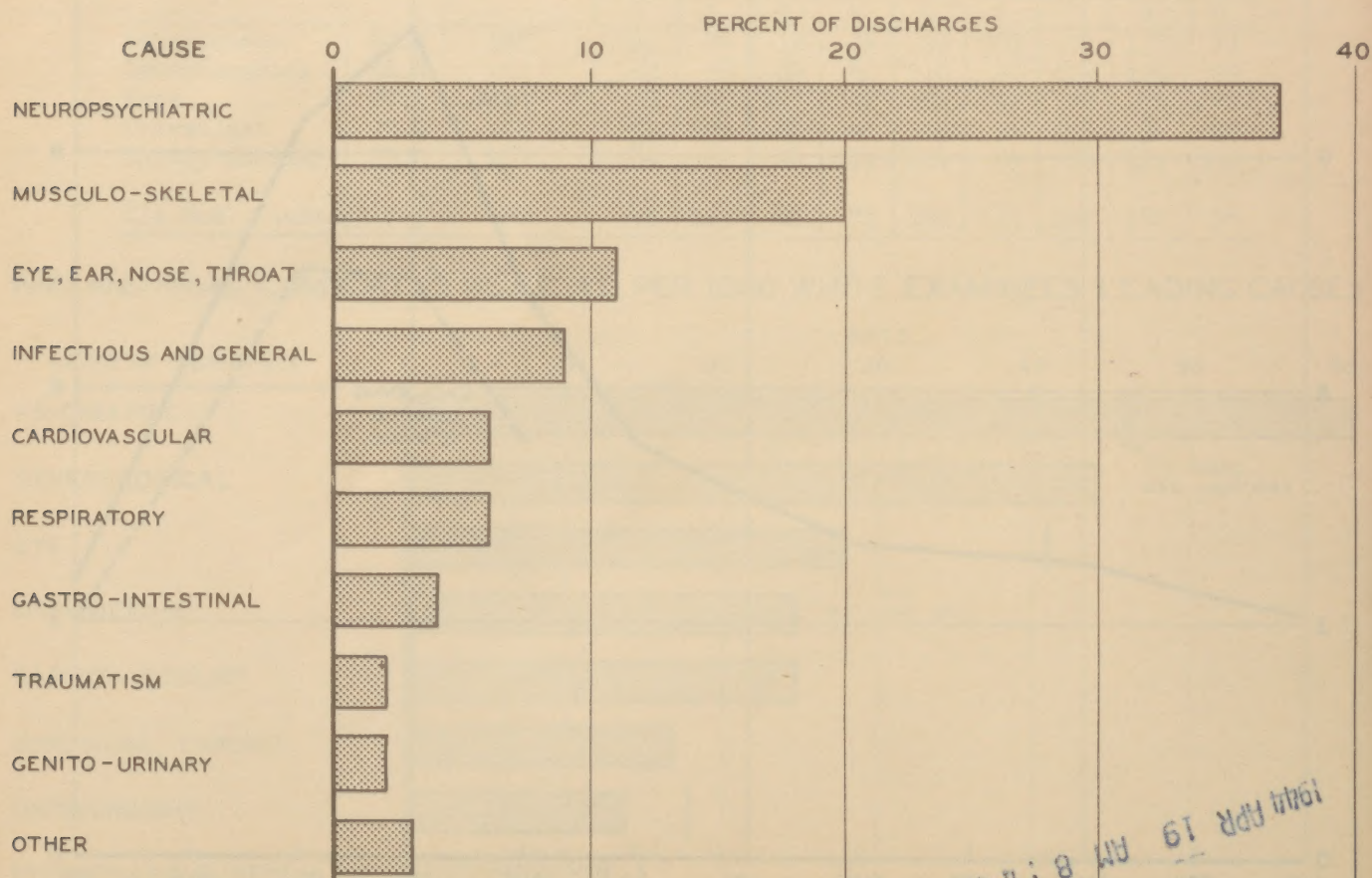
DISABILITY DISCHARGES DURING 1943 (Continued)

he can render the maximum service" and that "The discharge of an enlisted man for physical reasons because he is incapable of serving in a physically exacting position when he may well render adequate service in a less exacting assignment is a waste of military manpower and is prohibited". This historic statement of policy further operated to reduce the discharge rate, which fell from 9 percent per year in October to 6 percent in November and 4 percent in December, according to preliminary estimates. A third factor, the slowing down of the induction rate, also exerted some influence upon the declining discharge rate. Because most discharges have occurred among men with very few months of service, the failure to maintain the induction rate of the earlier months of 1943 incidentally had the effect of curtailing the size of the group contributing most heavily to the discharge rate.

Neuropsychiatric discharges comprise the largest single class of disability discharges as indicated below. From May to December between 33 and 46 percent of the discharges were made on these grounds. Psychoneurosis accounted for more than 70 percent of the neuropsychiatric discharges during 1943. Next in order of importance were impairments of the musculo-skeletal system which accounted for approximately 18 percent of all disability discharges. This class of defects was especially important in the case of limited service men judged not adaptable, about 30 percent having been discharged on this basis. Only 2 percent were discharged because of traumatism.

The problem of minimizing the discharge rate is largely a problem of better assignment, better leadership, and a more adequate motivational basis for effective duty. In view of the numerical importance of discharges for neuropsychiatric causes, the importance of developing superior morale can hardly be exaggerated. It is important that the Army not permit discharge for disability to become a means of exit for those who would evade military service. There is ample evidence that the maintenance of an Army of the desired size will require the utilization of individuals of less than optimum physical and mental capacity. No useful purpose is served by the repeated discarding and reassignment of sub-standard personnel, but if the Army actually has jobs for persons of restricted capacities, a suitable training and assignment program should permit the exercise of a fairly strict discharge policy.

CAUSES OF DISCHARGE FOR DISABILITY, ENLISTED MEN
AUG - OCT 1943



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